US009477488B2

(12) **United States Patent**
Milman

(10) **Patent No.: US 9,477,488 B2**
(45) **Date of Patent: Oct. 25, 2016**

(54) **SYSTEMS AND METHODS FOR MANAGING DISTRIBUTED SALES, SERVICE AND REPAIR OPERATIONS**

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(72) Inventor: **David Milman**, Jamesville, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 189 days.

(21) Appl. No.: **14/303,573**

(22) Filed: **Jun. 12, 2014**

(65) **Prior Publication Data**

US 2015/0363211 A1 Dec. 17, 2015

(51) **Int. Cl.**

G06F 9/44	(2006.01)
H04L 29/06	(2006.01)
G06F 21/31	(2013.01)
G06Q 10/00	(2012.01)

(52) **U.S. Cl.**

CPC ***G06F 9/4416*** (2013.01); ***G06F 21/31*** (2013.01); ***G06Q 10/00*** (2013.01); ***H04L 63/083*** (2013.01); *H04L 63/20* (2013.01)

(58) **Field of Classification Search**

CPC . H04L 41/0866; H04L 63/083; G06Q 10/20; G06Q 30/016; G06F 21/31; G06F 3/04817; G06F 9/4416

USPC 713/2

See application file for complete search history.

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ScreenConnect—Features and Functionality Reboot the Machine to Normal or Safe Mode.

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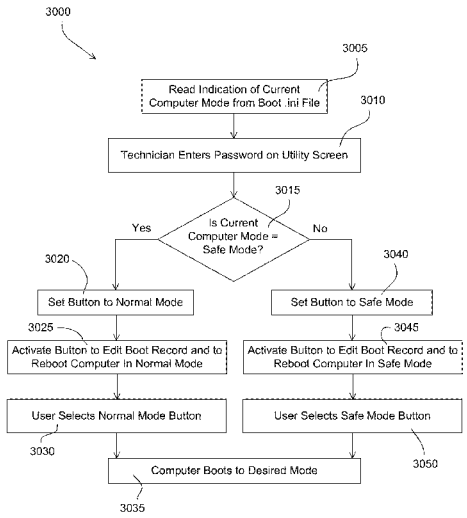
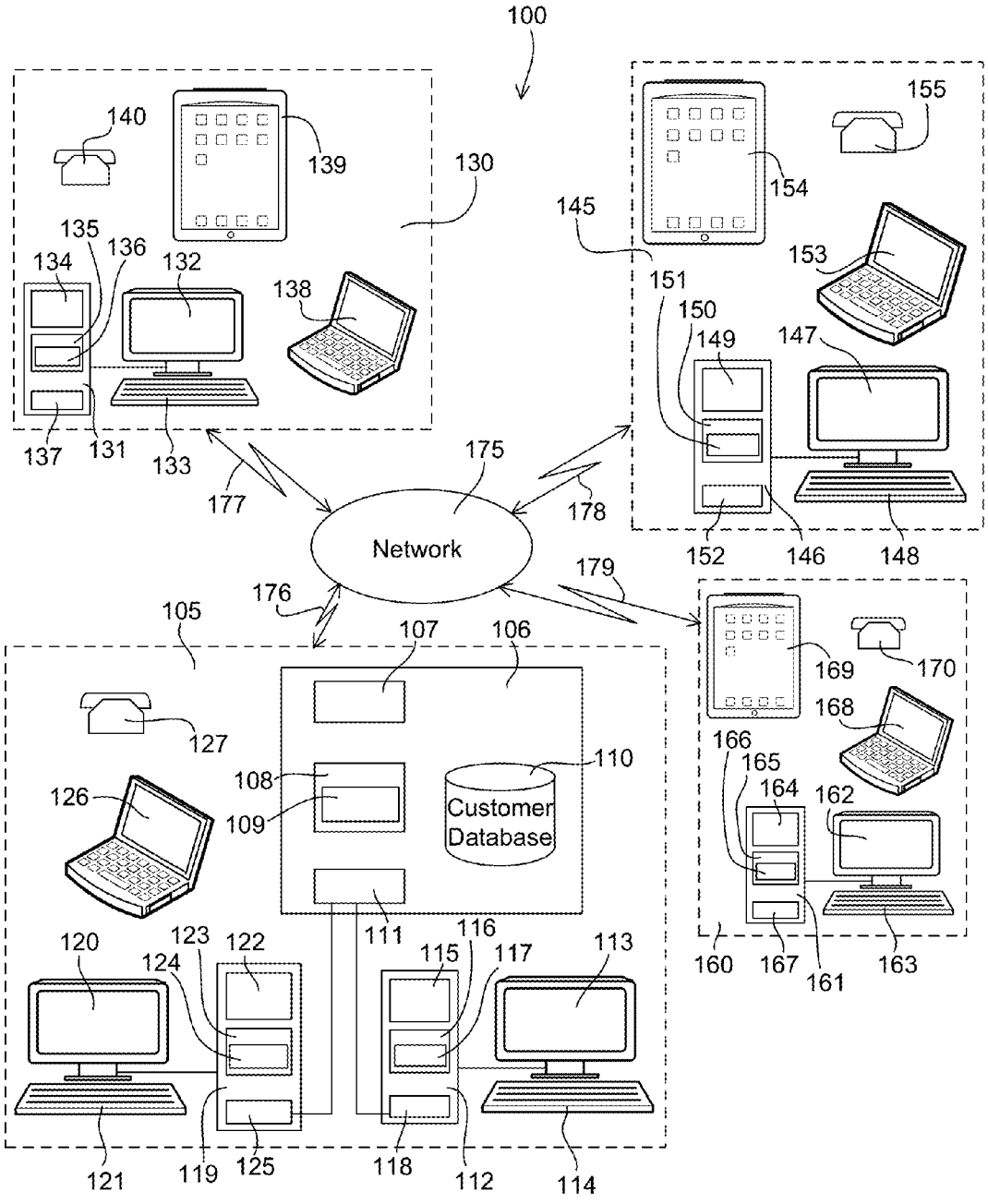
Primary Examiner — Thomas Lee
Assistant Examiner — Santosh R Poudel
(74) *Attorney, Agent, or Firm* — James E. Schultz, Jr.

(57) **ABSTRACT**

The systems and methods of the present disclosure are generally related to managing distributed sales, service and repair operations. In particular, the systems and methods of the present disclosure relate to managing a distributed network of sales, service and/or repair operations that include automated features.

20 Claims, 38 Drawing Sheets

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Customer Database
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Fig. 1

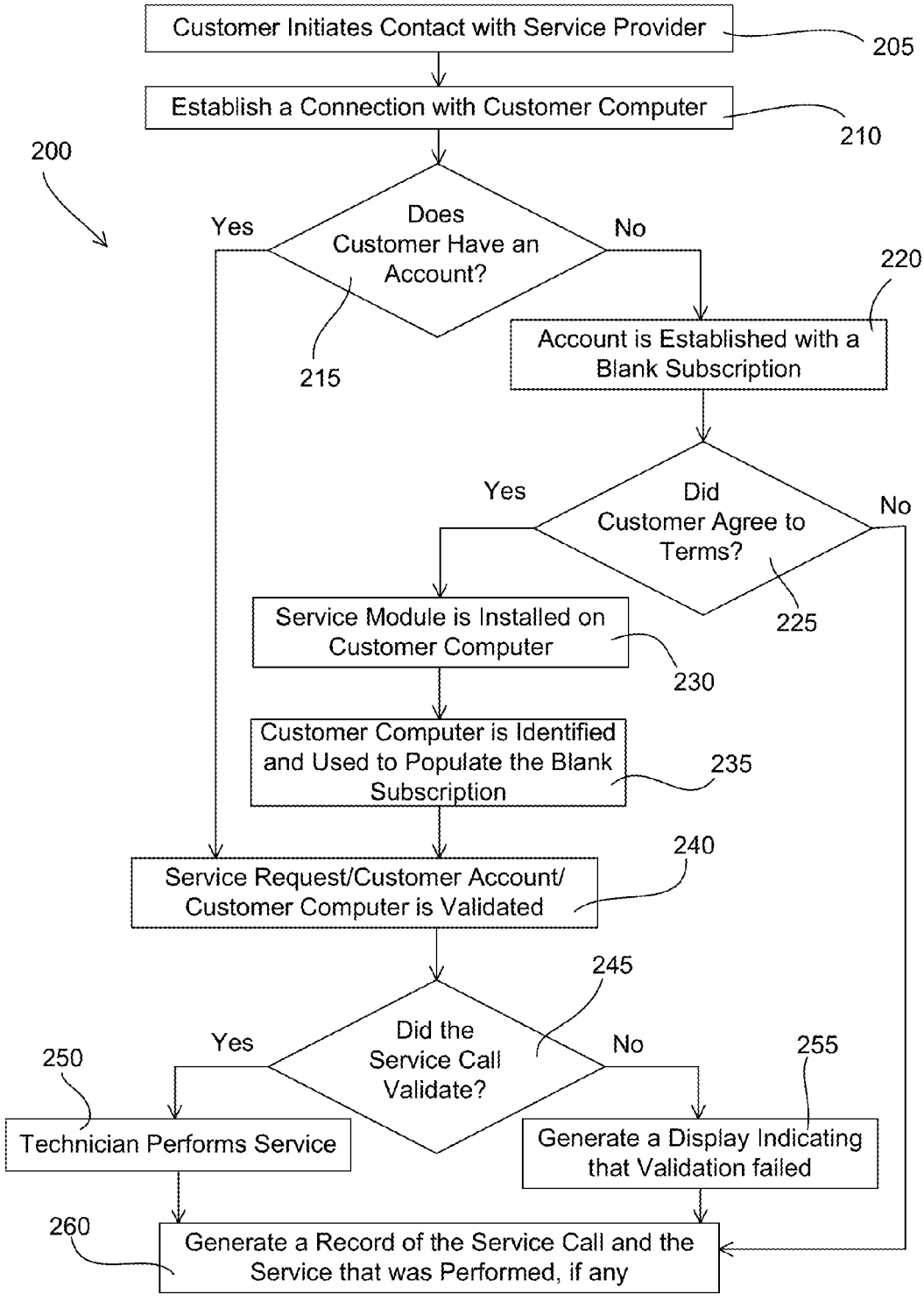

Customer Initiates Contact with Service Provider
205
Establish a Connection with Customer Computer
210
200
Does Customer Have an Account?
Yes
No
215
220
Account is Established with a Blank Subscription
Did Customer Agree to Terms?
Yes
No
225
Service Module is Installed on Customer Computer
230
Customer Computer is Identified and Used to Populate the Blank Subscription
235
Service Request/Customer Account/ Customer Computer is Validated
240
Did the Service Call Validate?
245
Yes
No
250
255
Technician Performs Service
Generate a Display Indicating that Validation failed
260
Generate a Record of the Service Call and the Service that was Performed, if any

Fig. 2

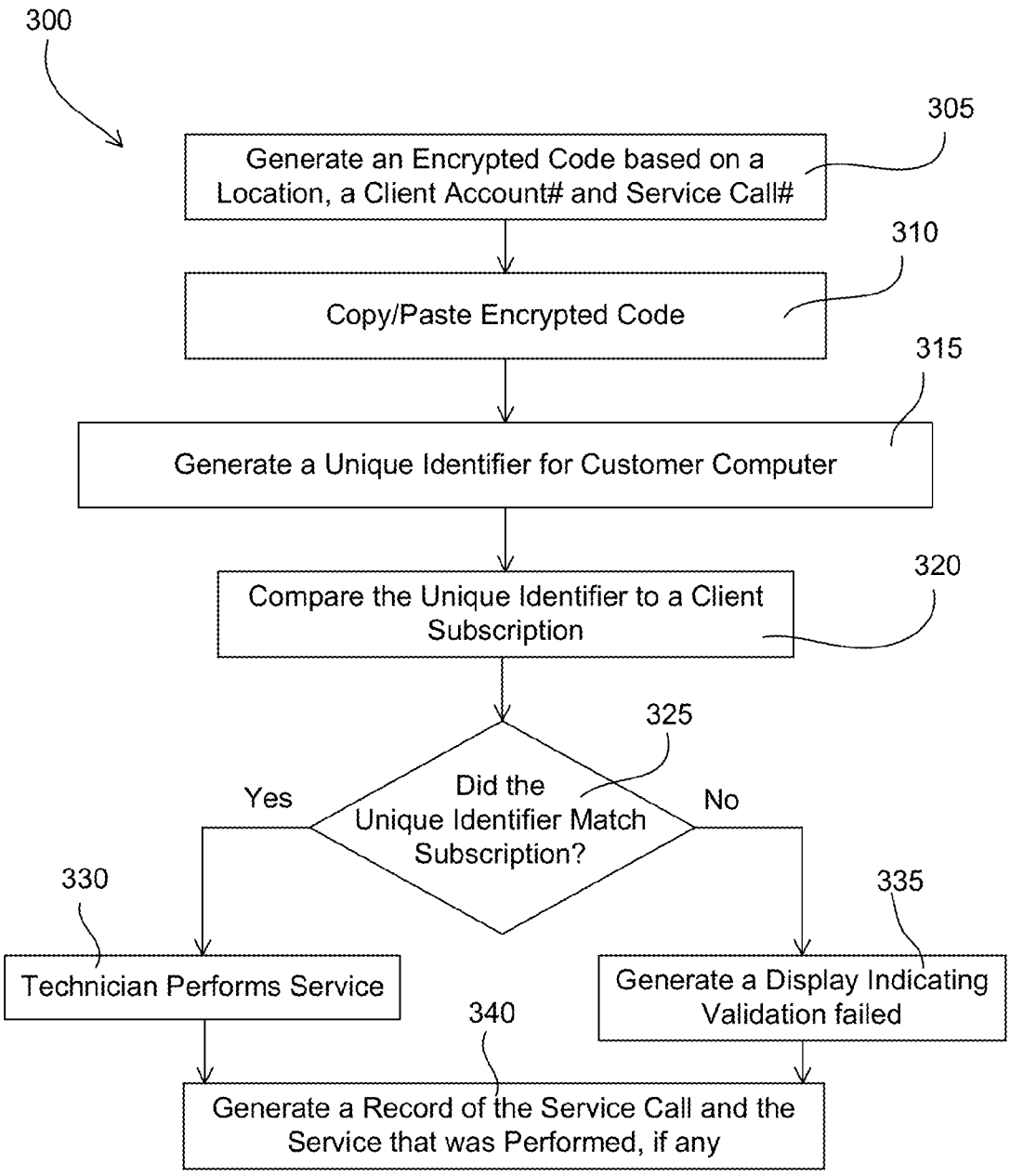
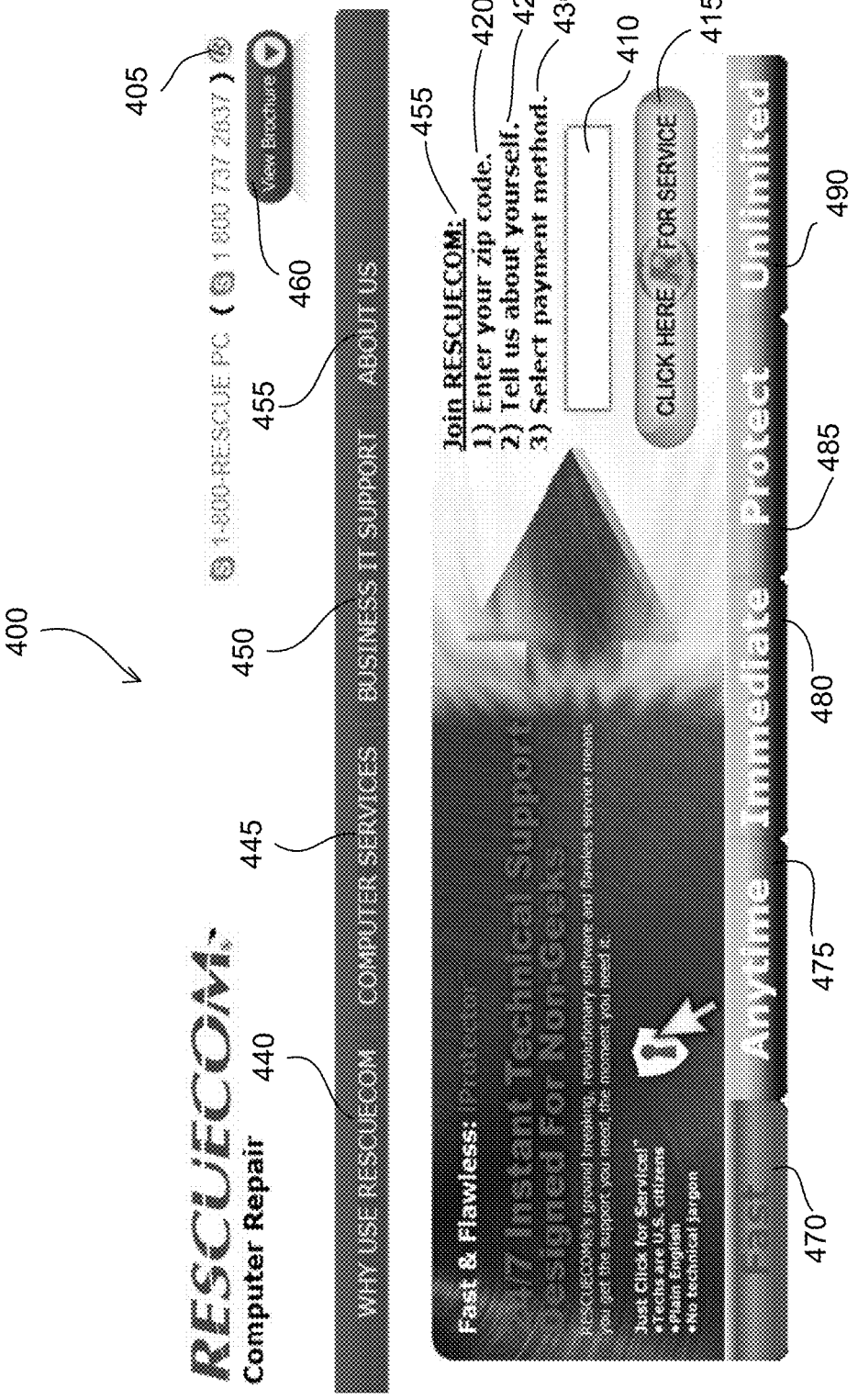

300
305
Generate an Encrypted Code based on a Location, a Client Account# and Service Call#
310
Copy/Paste Encrypted Code
315
Generate a Unique Identifier for Customer Computer
320
Compare the Unique Identifier to a Client Subscription
325
Did the Unique Identifier Match Subscription?
Yes
No
330
Technician Performs Service
335
Generate a Display Indicating Validation failed
340
Generate a Record of the Service Call and the Service that was Performed, if any

Fig. 3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2) Tell us about yourself.
3) Select payment method.
CLICK HERE FOR SERVICE
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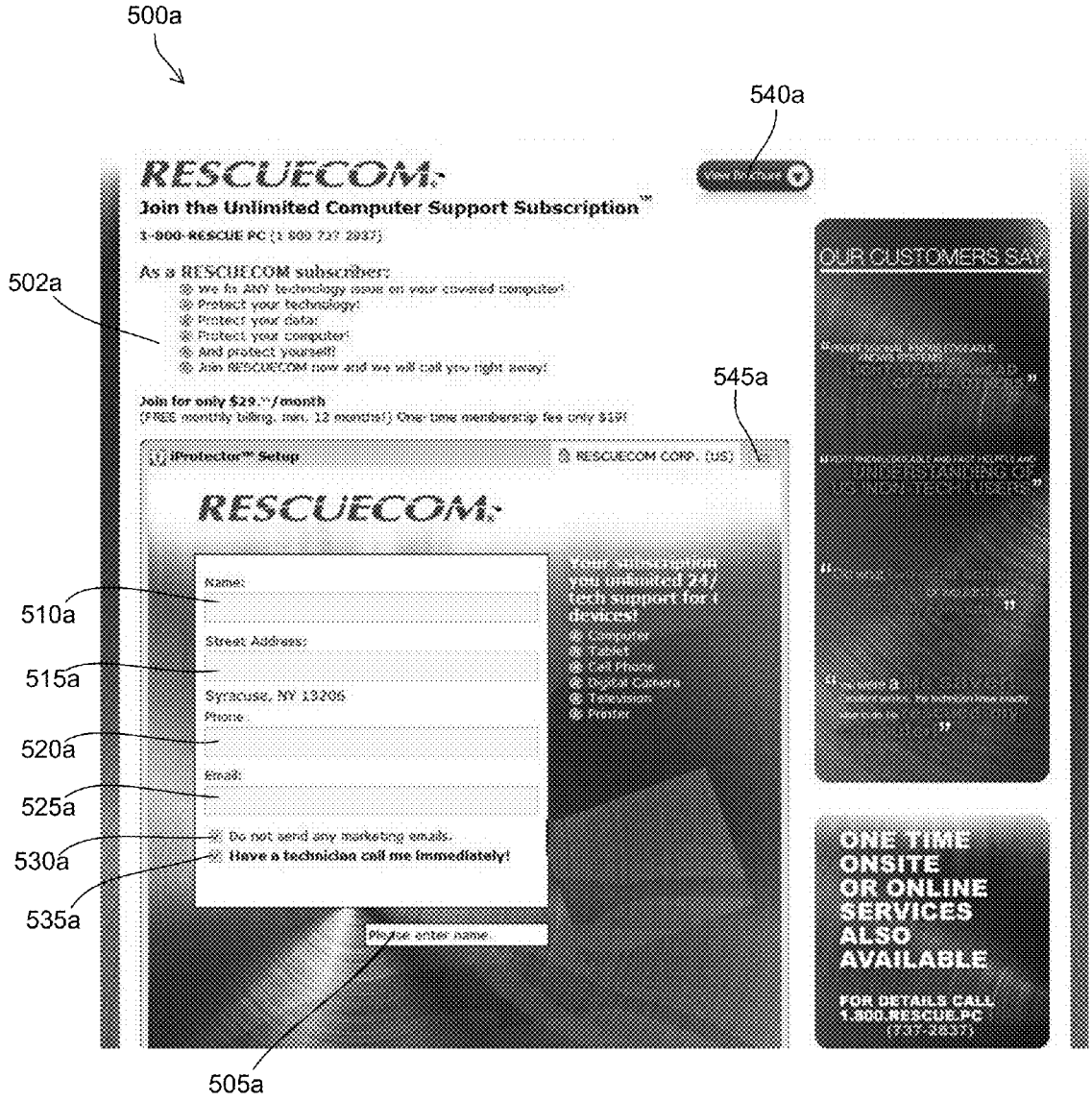
Fig. 4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540a
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Protect your data!
Protect your computer!
And protect yourself!
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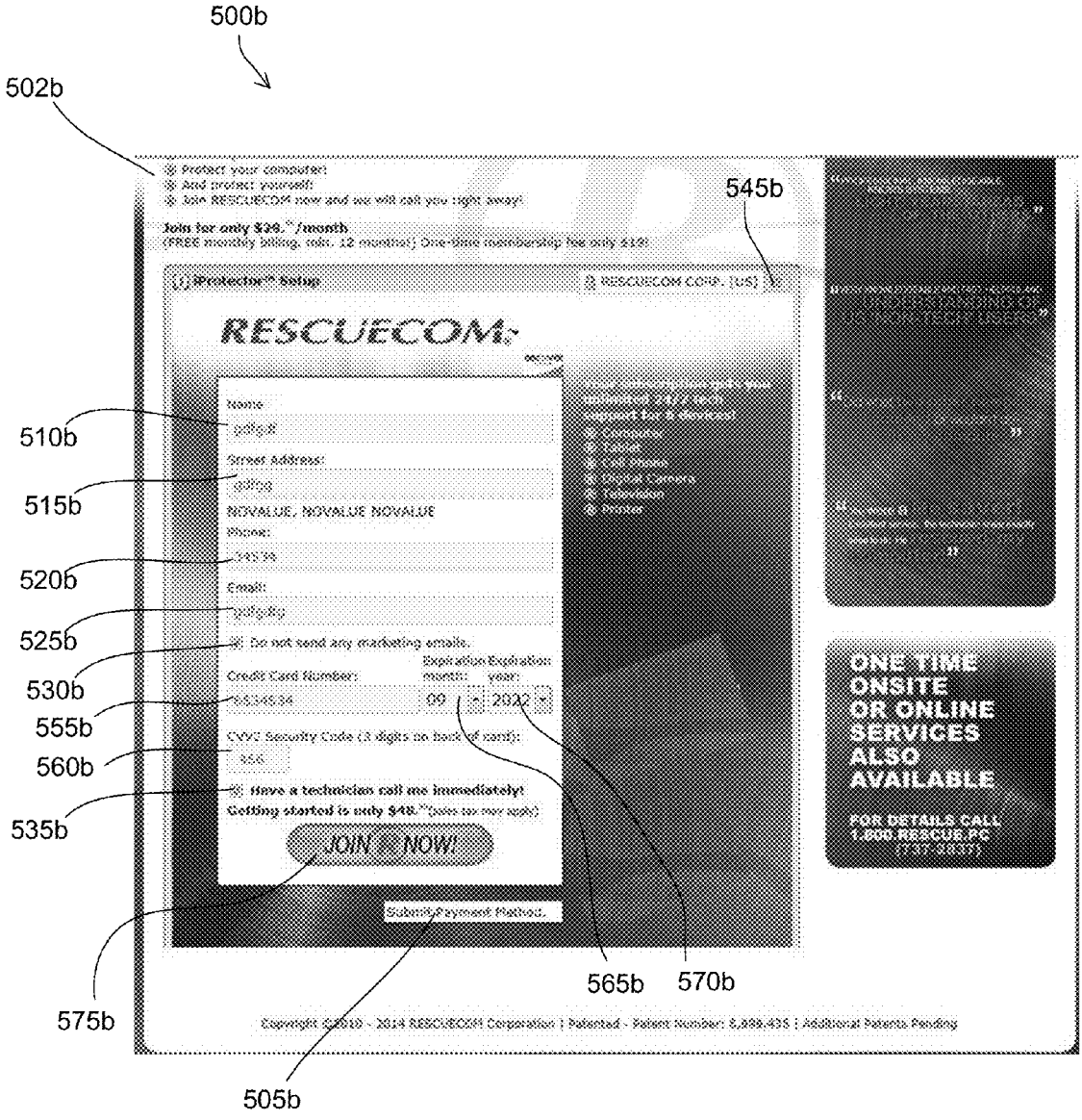
Join for only $29.**/month
(FREE monthly billing, min. 12 months!) One-time membership fee only $19!
502a
545a
iProtector™ Setup
RESCUECOM CORP. (US)
RESCUECOM
Name:
Street Address:
Syracuse, NY 13206
Phone:
Email:
Do not send any marketing emails.
Have a technician call me immediately!
Please enter name.
510a
515a
520a
525a
530a
535a
505a
OUR CUSTOMERS SAY
ONE TIME ONSITE OR ONLINE SERVICES ALSO AVAILABLE
FOR DETAILS CALL 1.800.RESCUE.PC (737.2837)

Fig. 5A


500b
502b
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515b
520b
525b
530b
555b
560b
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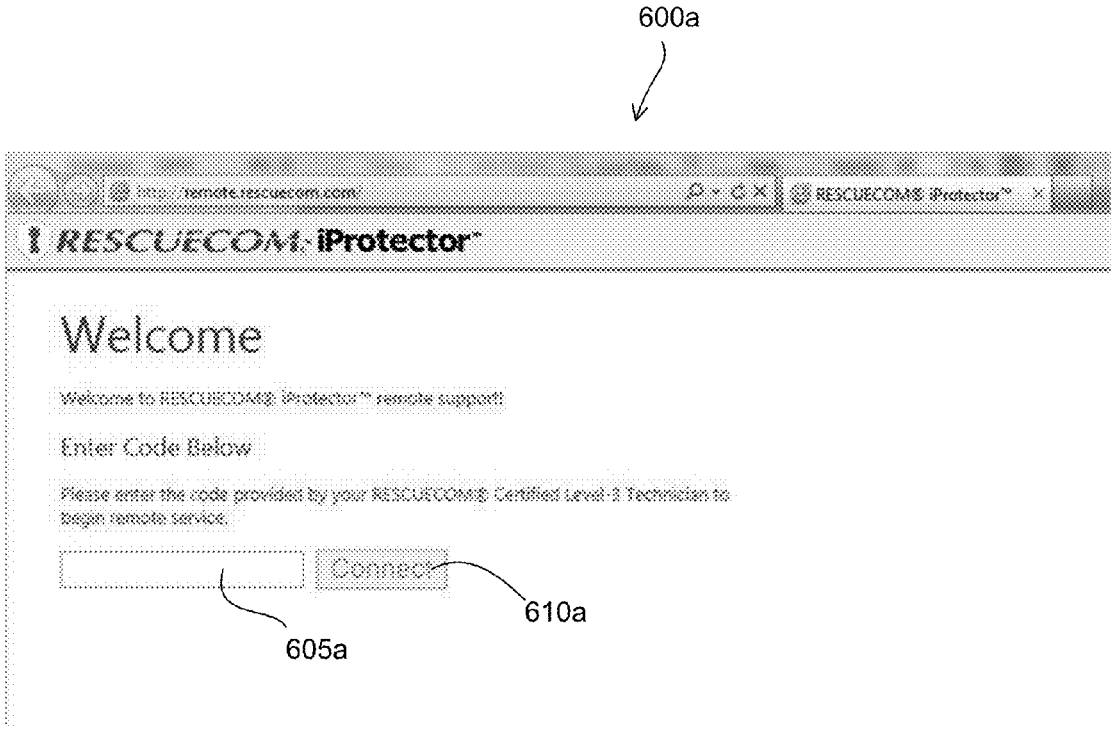
570b
RESCUECOM
JOIN NOW!
ONE TIME ONSITE OR ONLINE SERVICES ALSO AVAILABLE

Fig. 5B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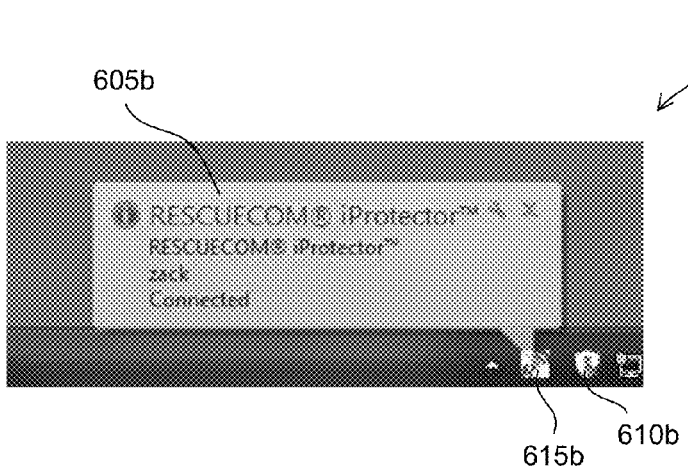
RESCUECOM iProtector
Welcome
Enter Code Below
Connect
610a
605a

Fig. 6A


600b
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RESCUECOM® iProtector™
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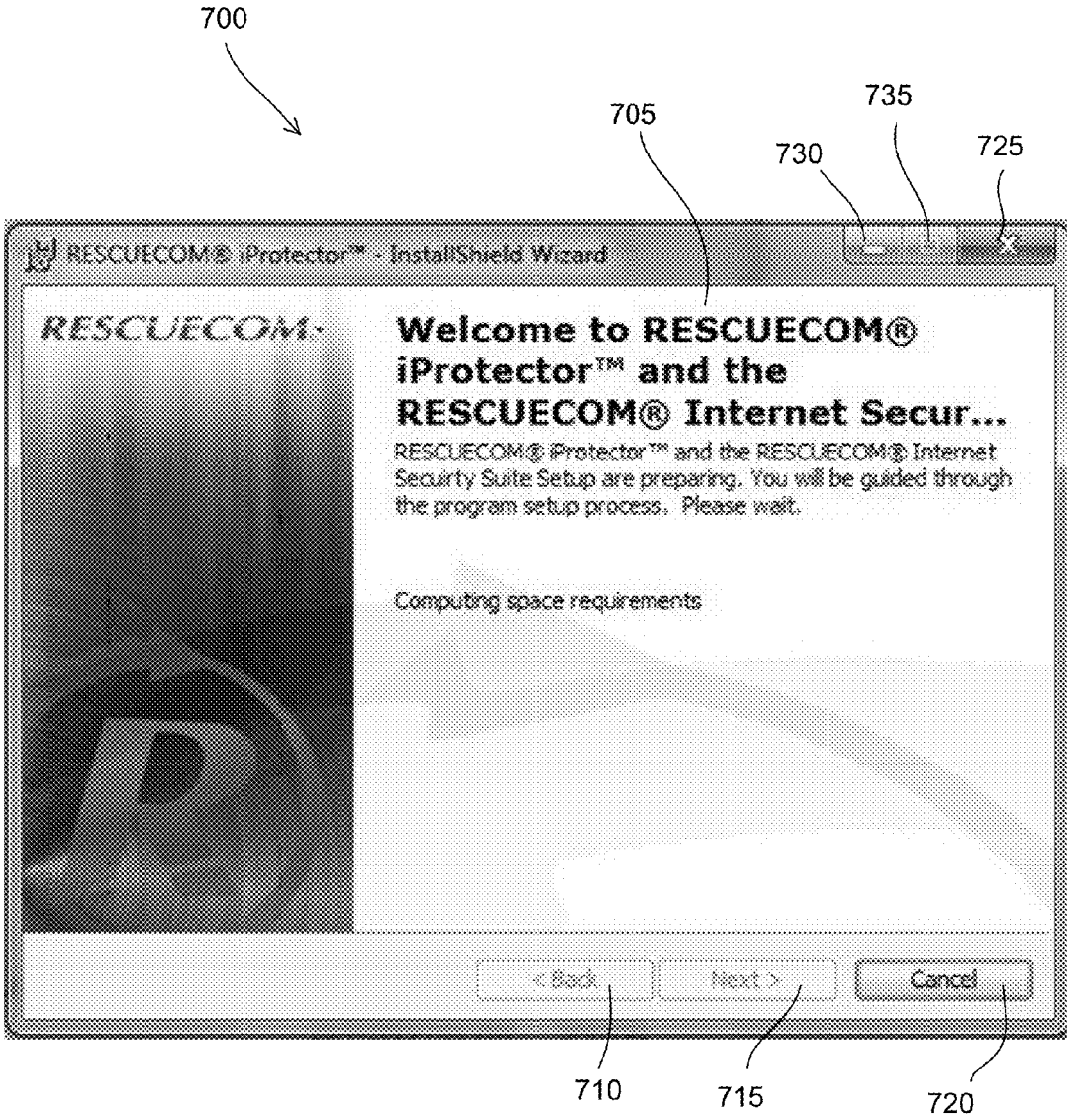
Fig. 6B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RESCUECOM® iProtector™ - InstallShield Wizard
RESCUECOM
Welcome to RESCUECOM® iProtector™ and the RESCUECOM® Internet Secur...
RESCUECOM® iProtector™ and the RESCUECOM® Internet Security Suite Setup are preparing. You will be guided through the program setup process. Please wait.
Computing space requirements
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Cancel
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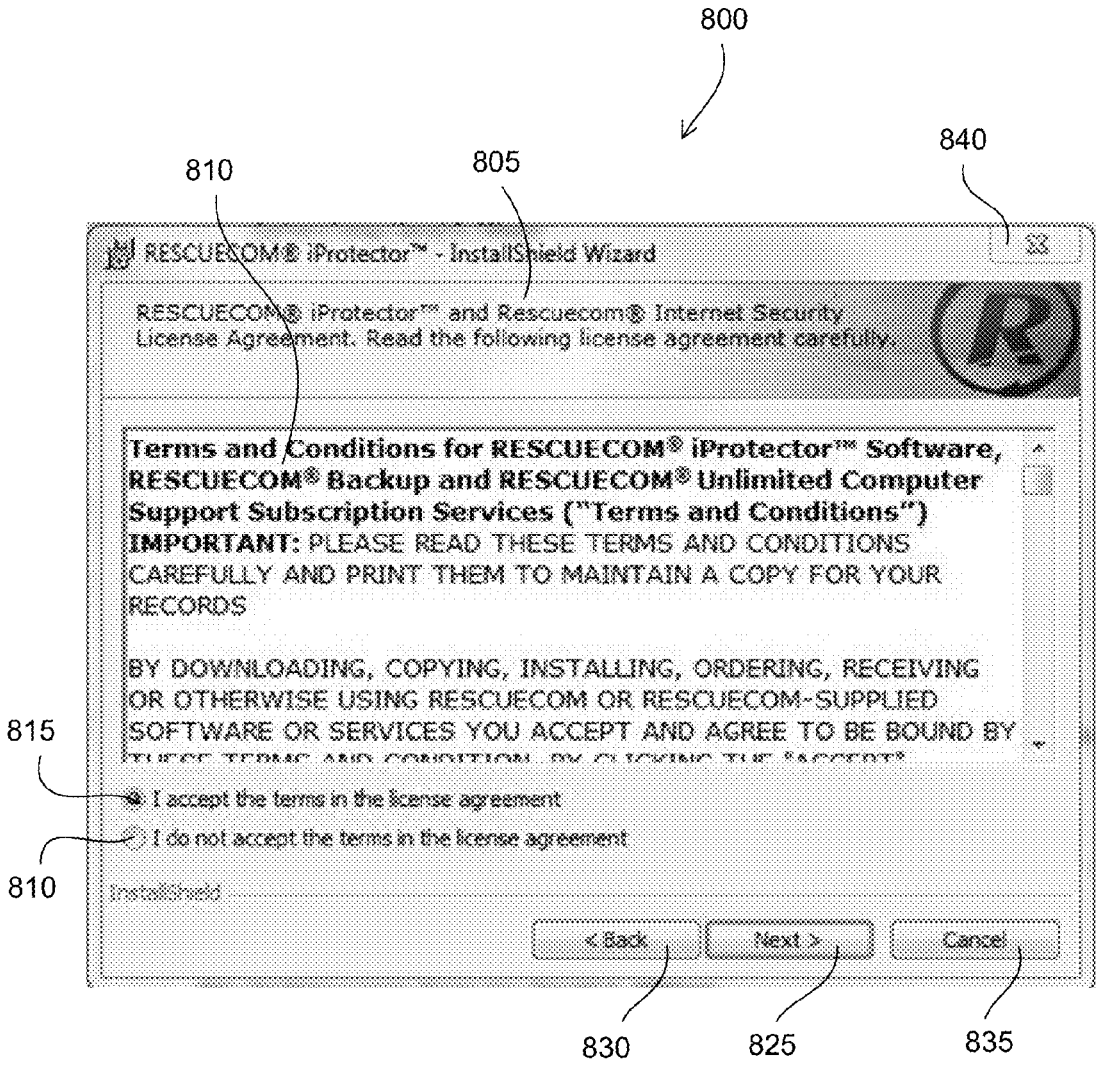
Fig. 7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I accept the terms in the license agreement
I do not accept the terms in the license agreement
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InstallShield
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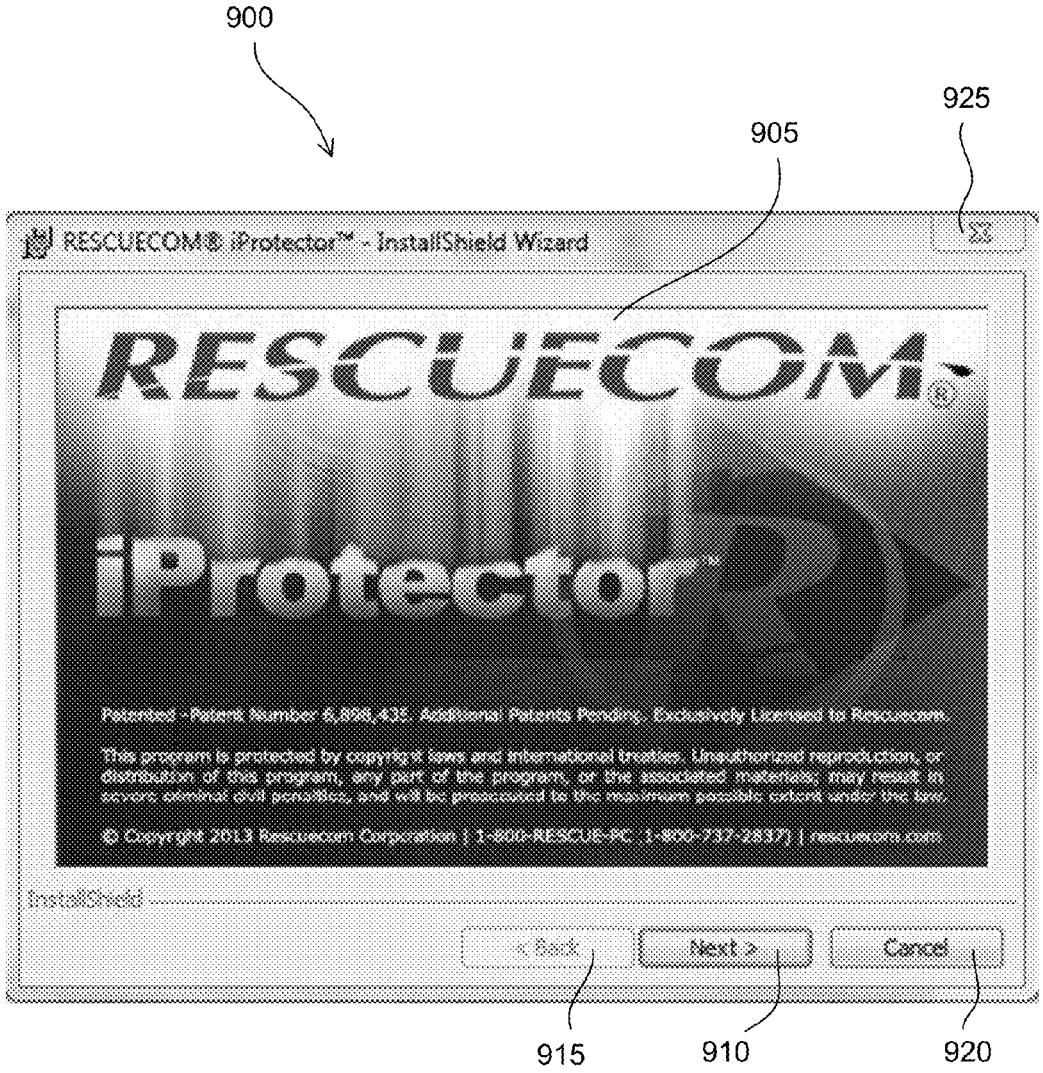
Fig. 8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iProtector™
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InstallShield
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915
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Fig. 9

1000
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RESCUECOM® iProtector™ - InstallShield Wizard
RESCUECOM
RESCUECOM® iProtector™
RESCUECOM® iProtector™ and the RESCUECOM® Internet Security Suite will now install on your computer. To continue, click Next.
This program is protected by copyright laws and international treaties. Unauthorized reproduction, or distribution of this program, any part of the program, or the associated materials; may result in severe criminal civil penalties, and will be prosecuted to the maximum possible extent under the law.
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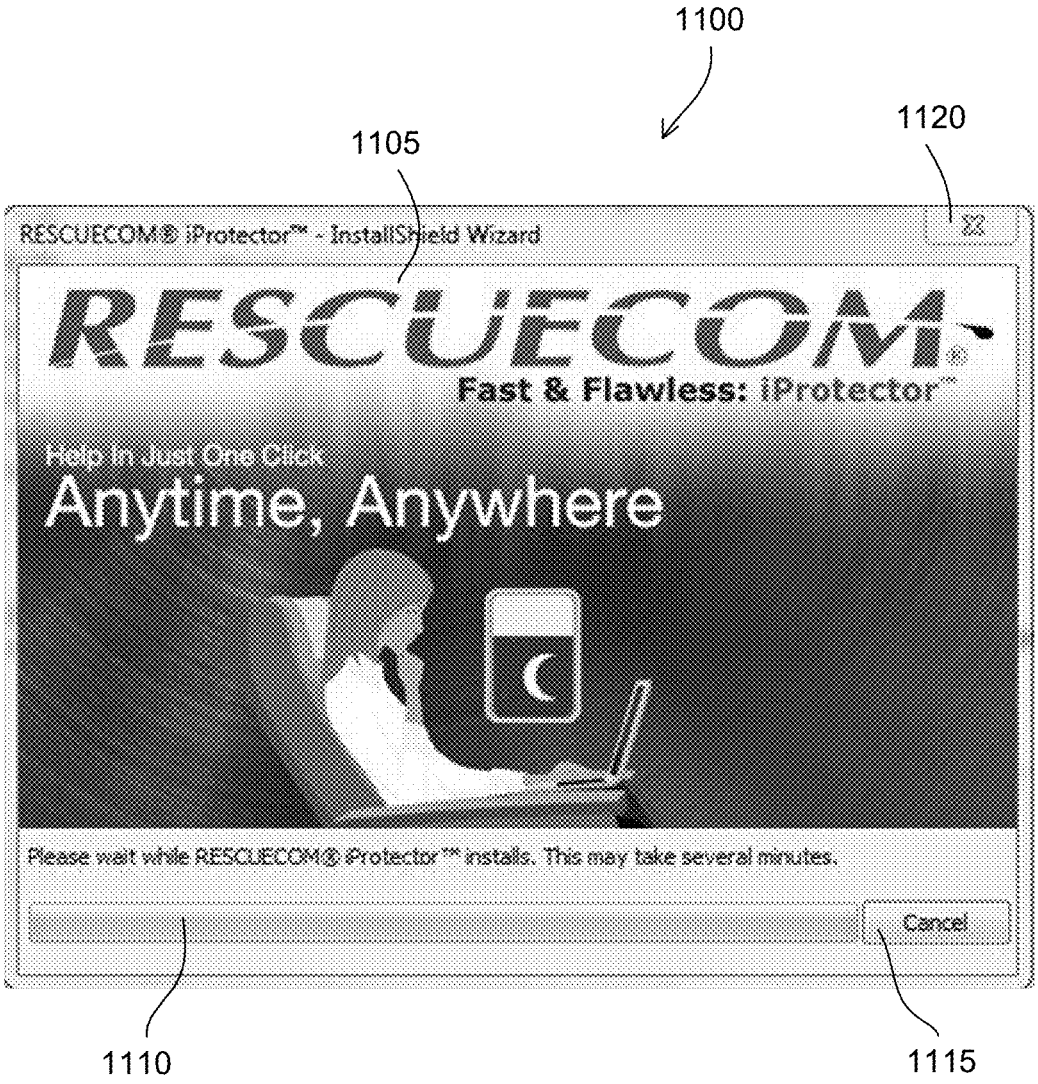
Fig. 10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RESCUECOM® iProtector™ - InstallShield Wizard
RESCUECOM®
Fast & Flawless: iProtector™
Help In Just One Click
Anytime, Anywhere
Please wait while RESCUECOM® iProtector™ installs. This may take several minutes.
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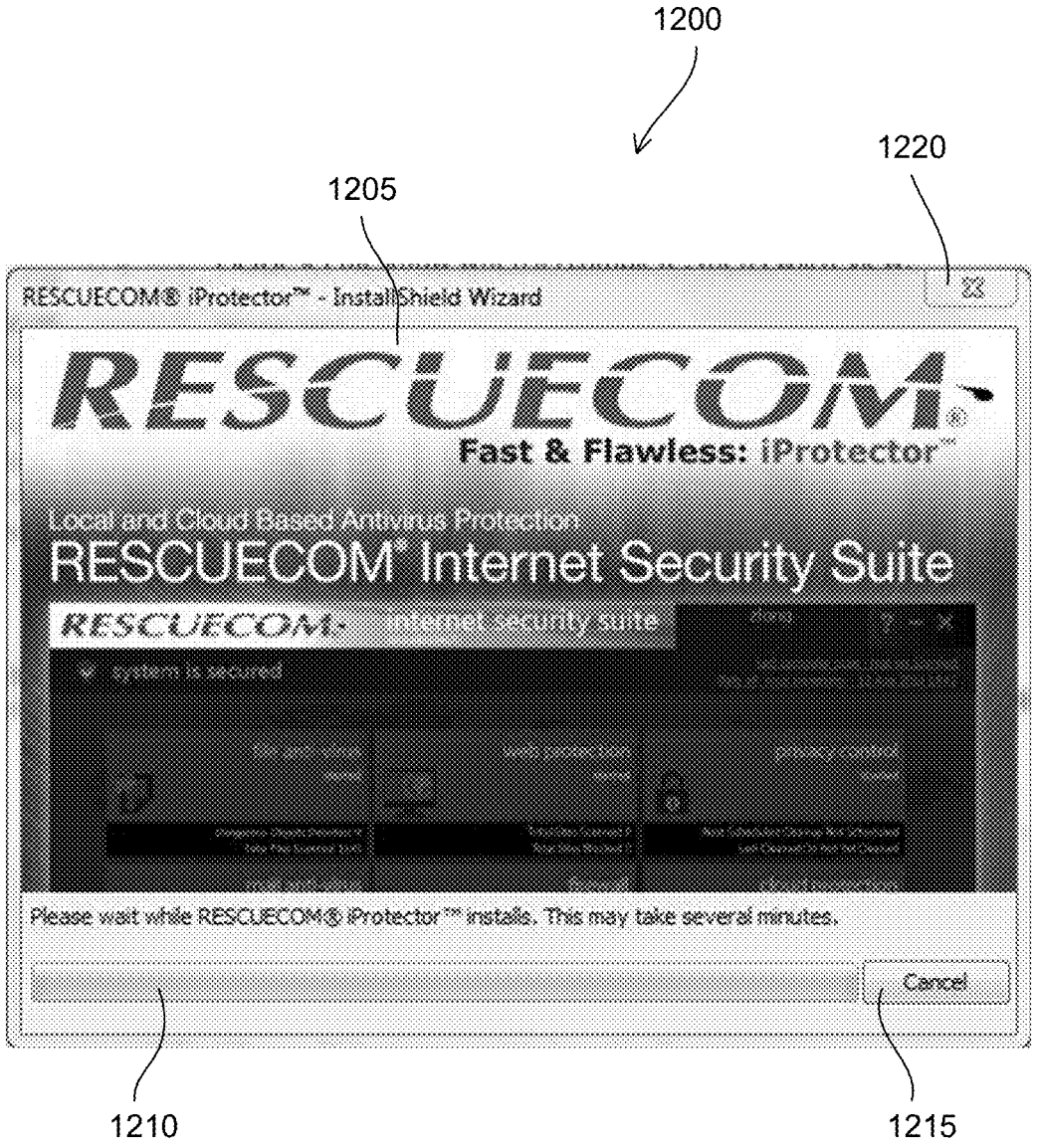
Fig. 11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RESCUECOM® iProtector™ - InstallShield Wizard
RESCUECOM®
Fast & Flawless: iProtector™
Local and Cloud Based Antivirus Protection
RESCUECOM® Internet Security Suite
Please wait while RESCUECOM® iProtector™ installs. This may take several minutes.
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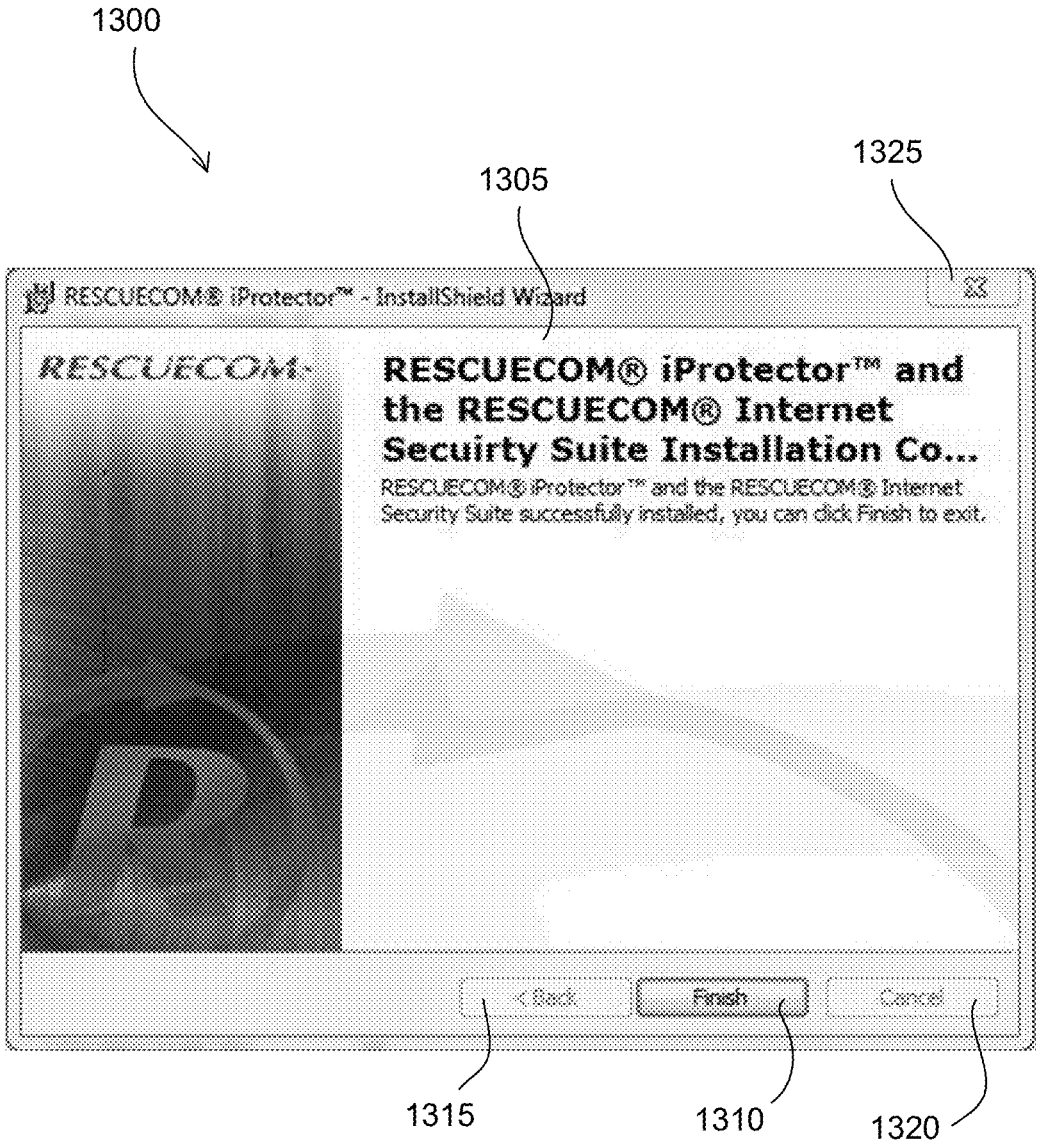
Fig. 12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RESCUECOM® iProtector™ - InstallShield Wizard
RESCUECOM
RESCUECOM® iProtector™ and the RESCUECOM® Internet Secuirty Suite Installation Co...
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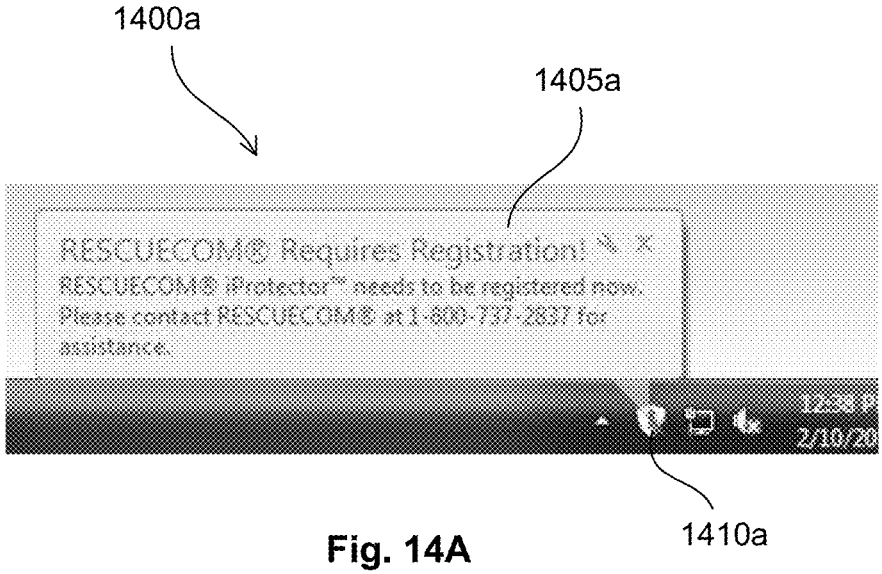
Fig. 13



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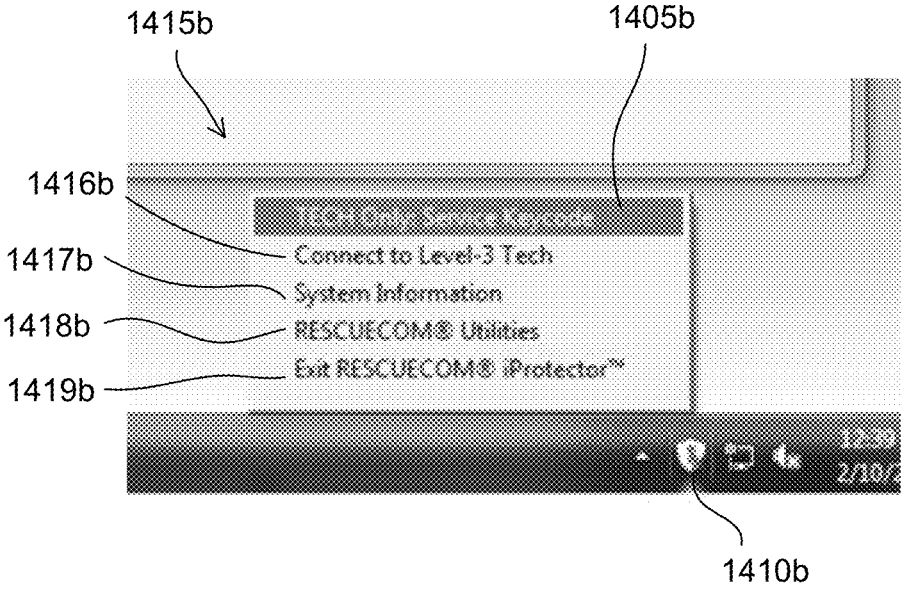

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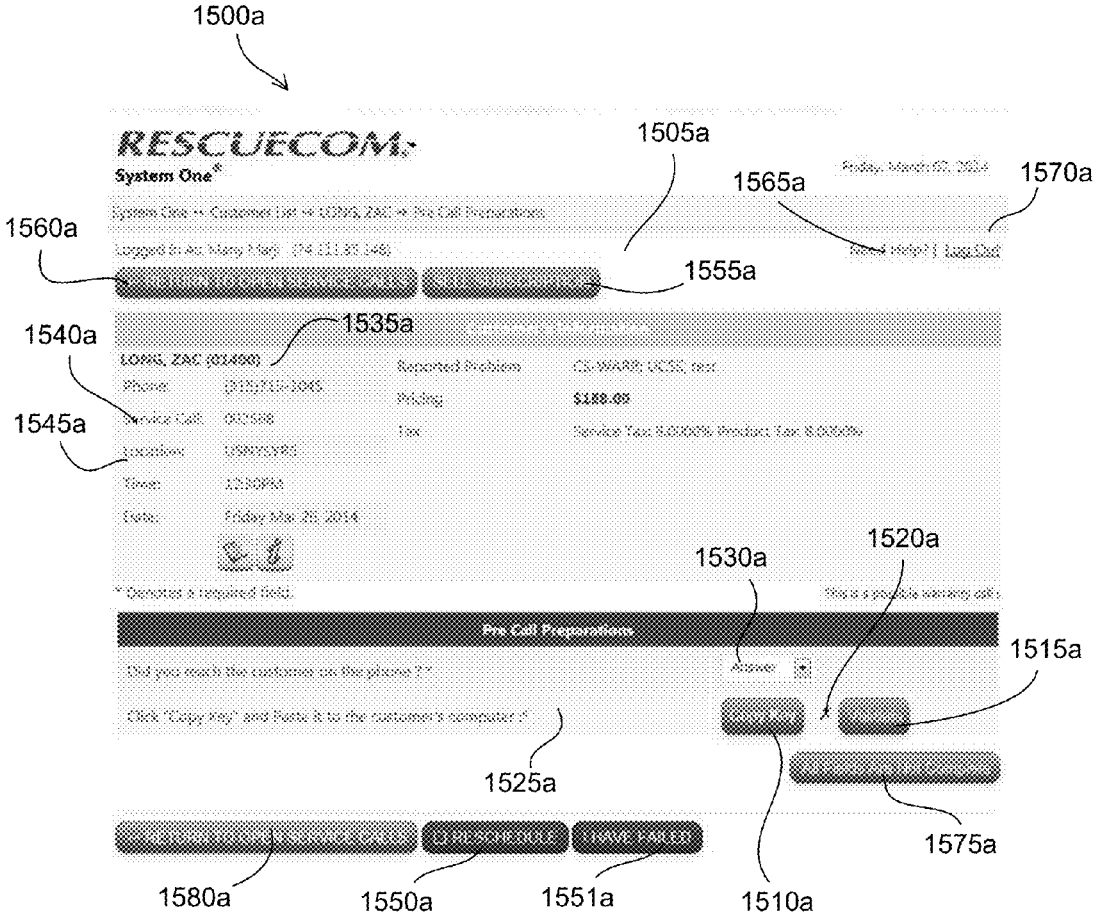

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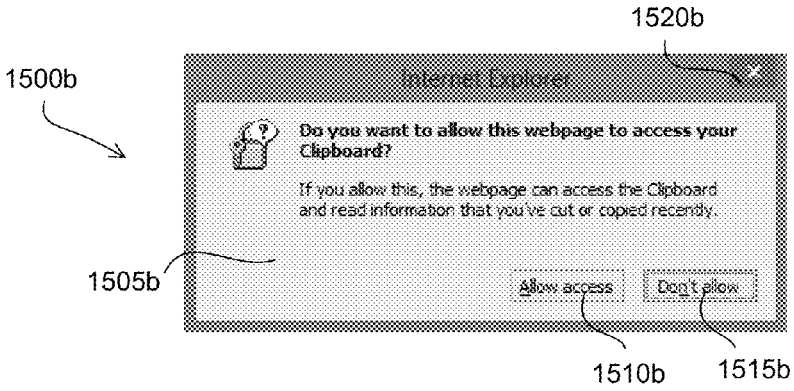

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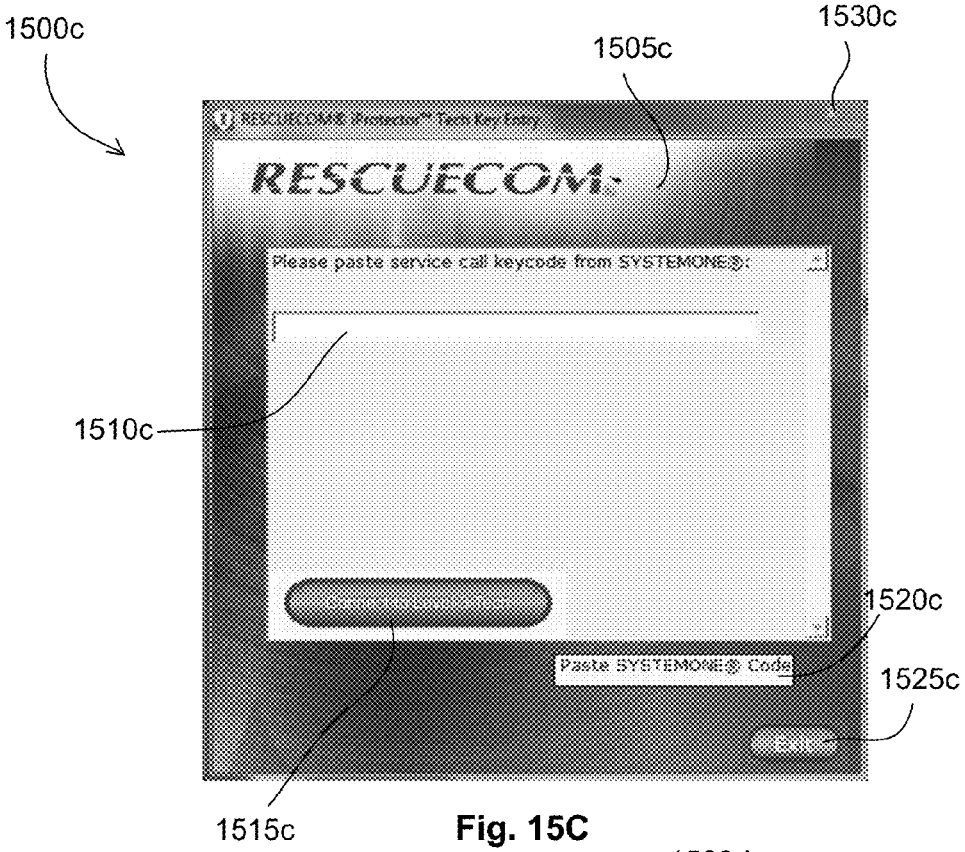

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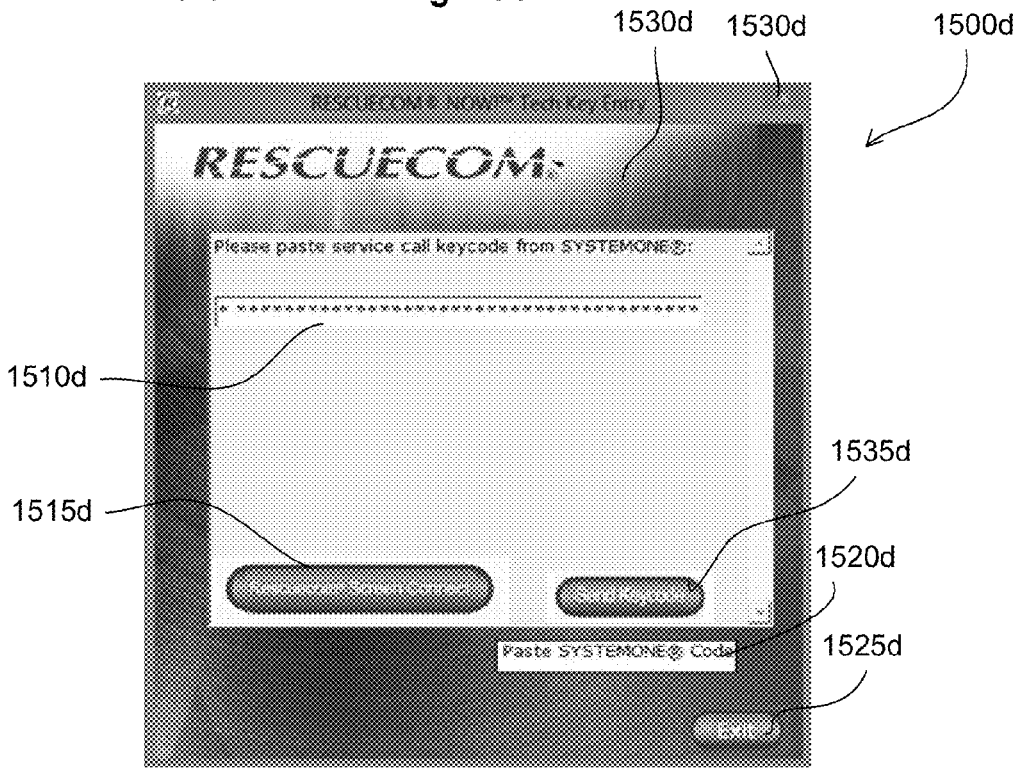

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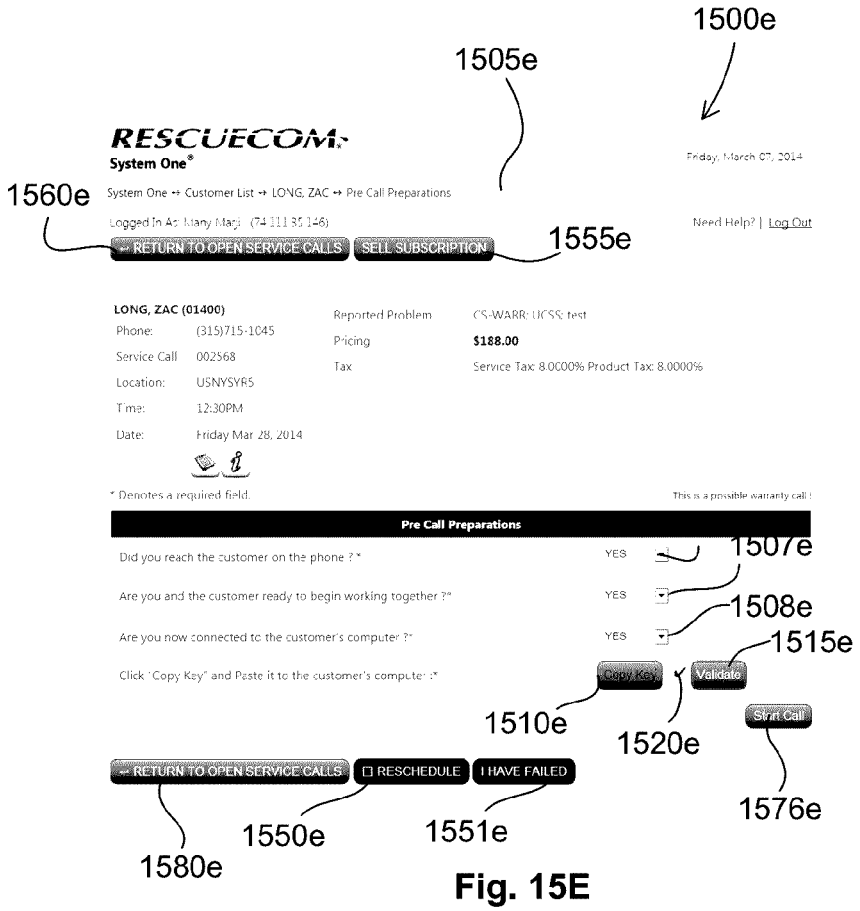

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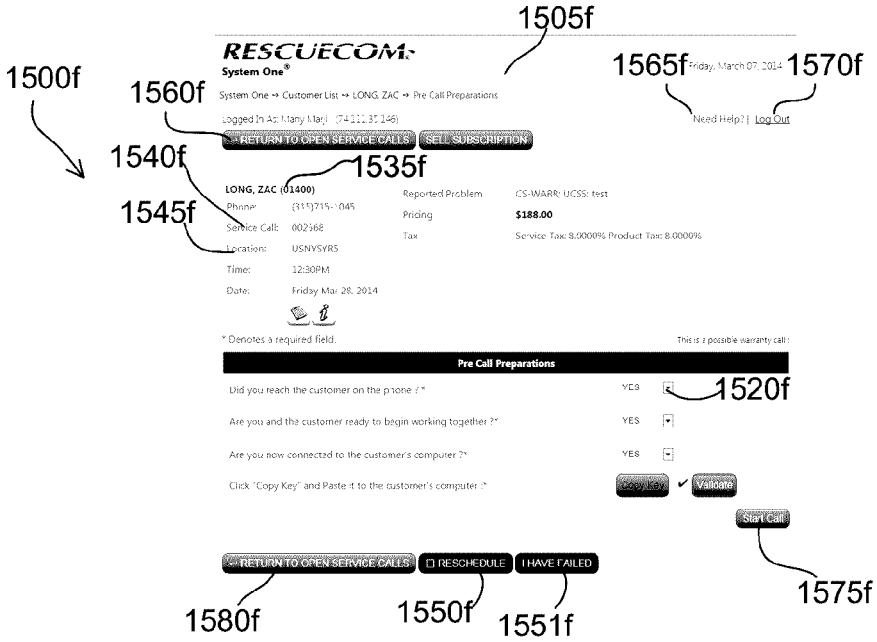

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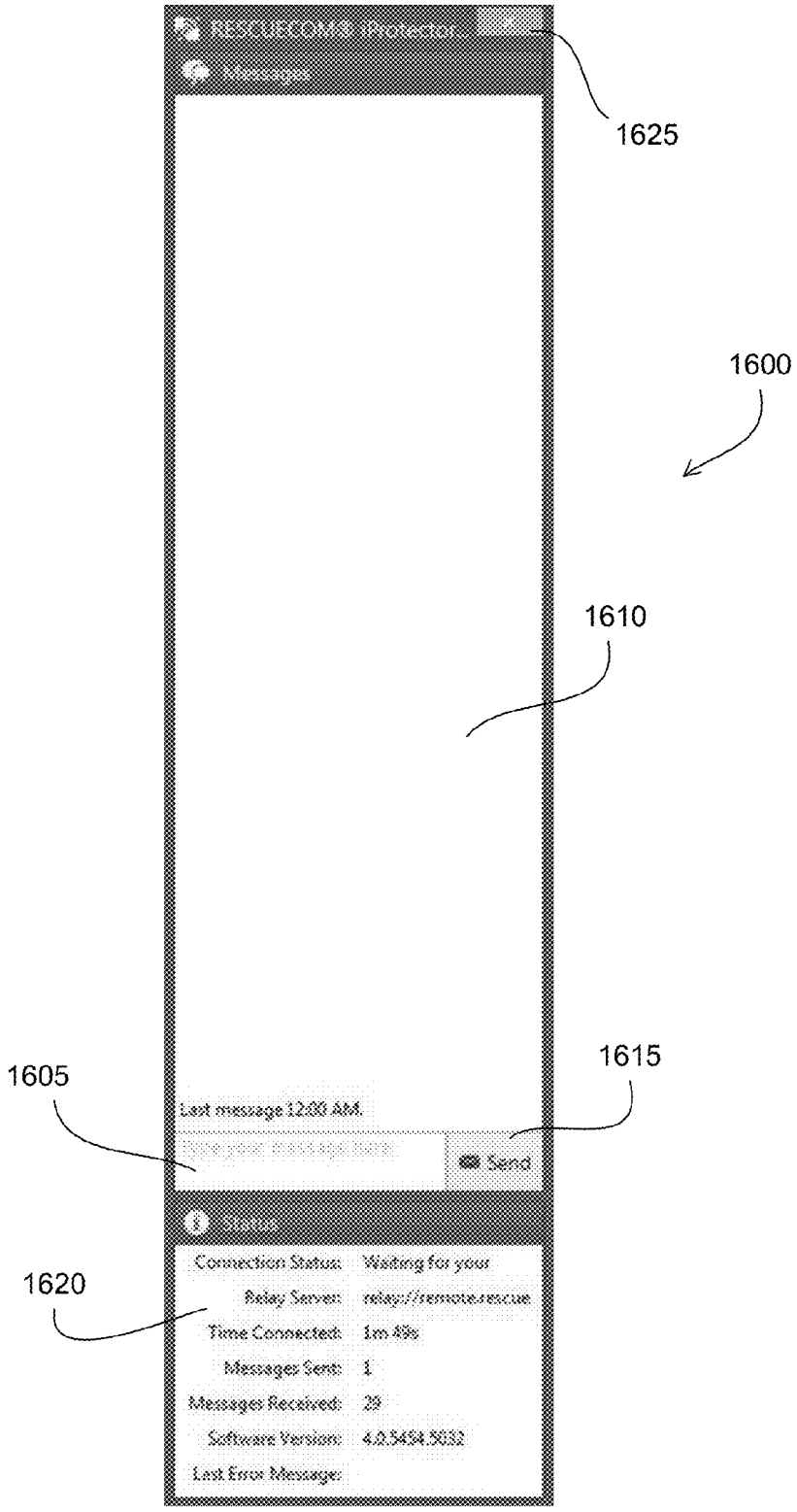


Fig. 16

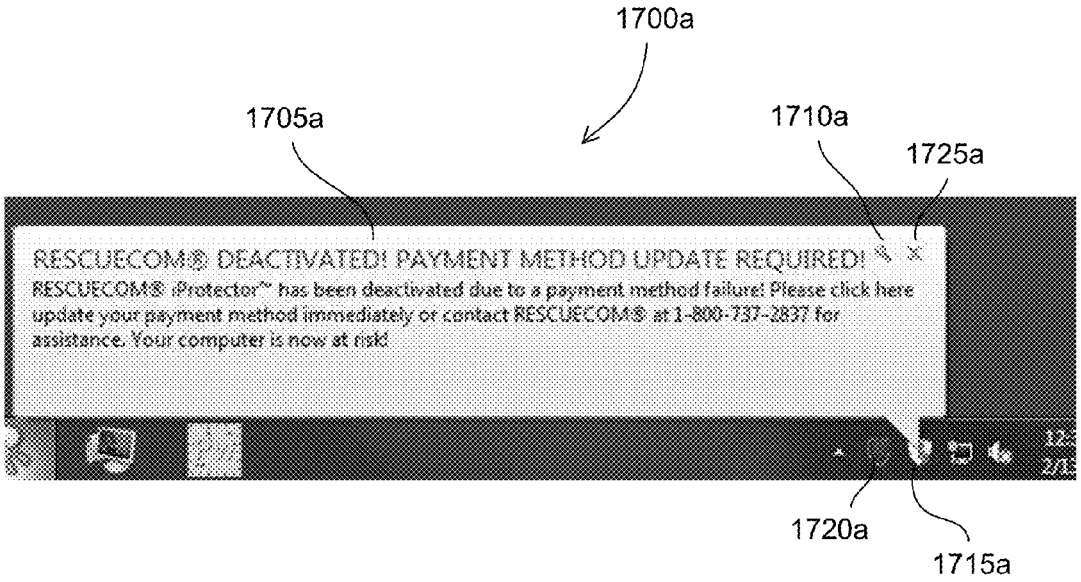


Fig. 17A

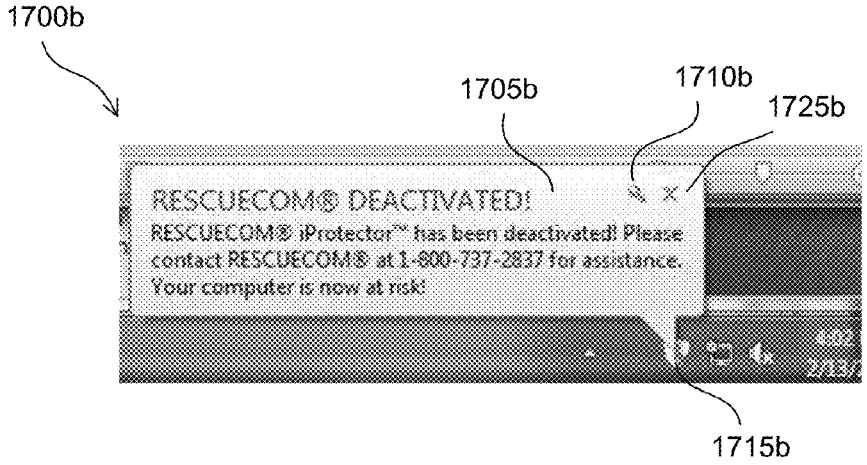


Fig. 17B

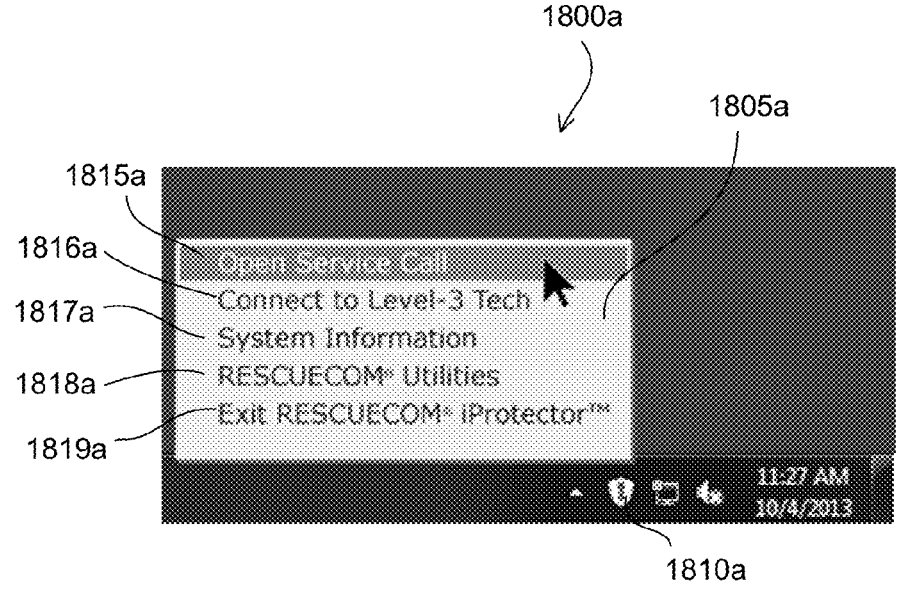


Fig. 18A

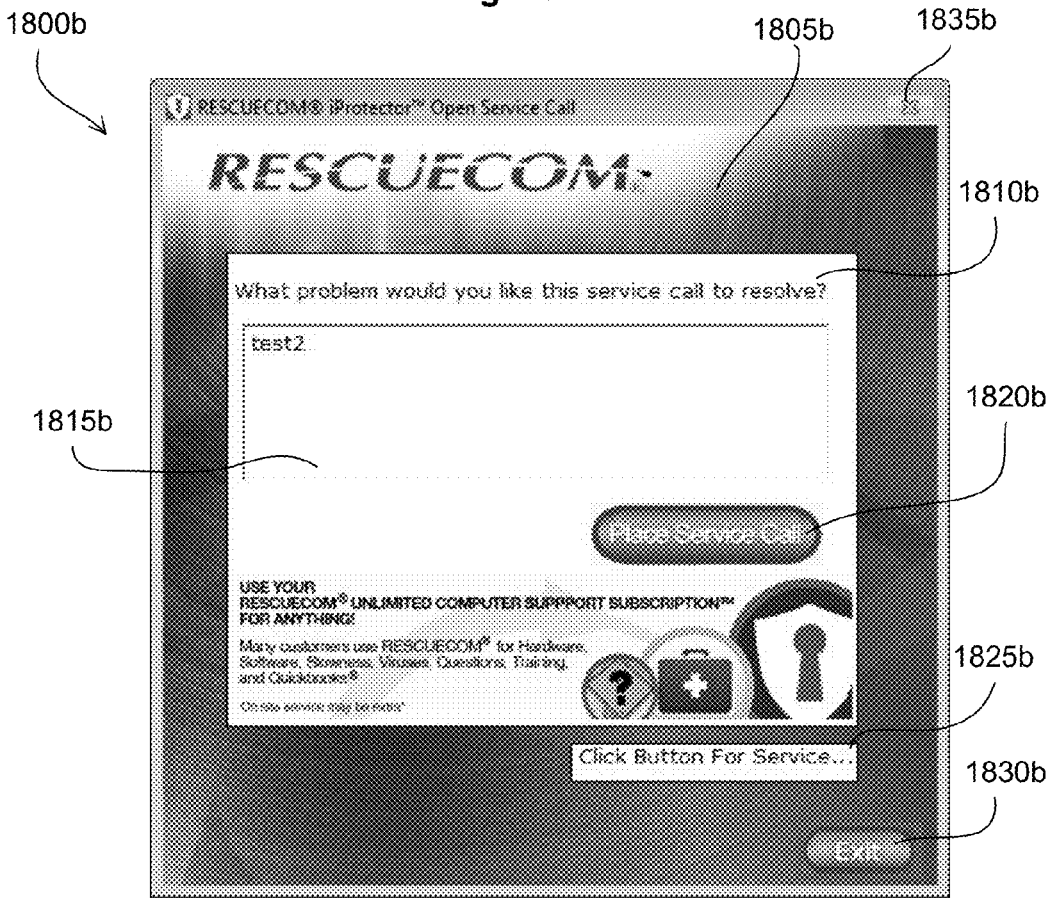
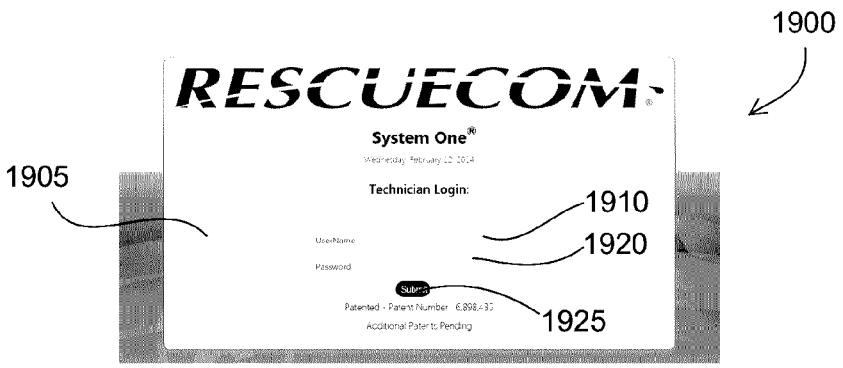


Fig. 18B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RESCUECOM
System One®
Technician Login:
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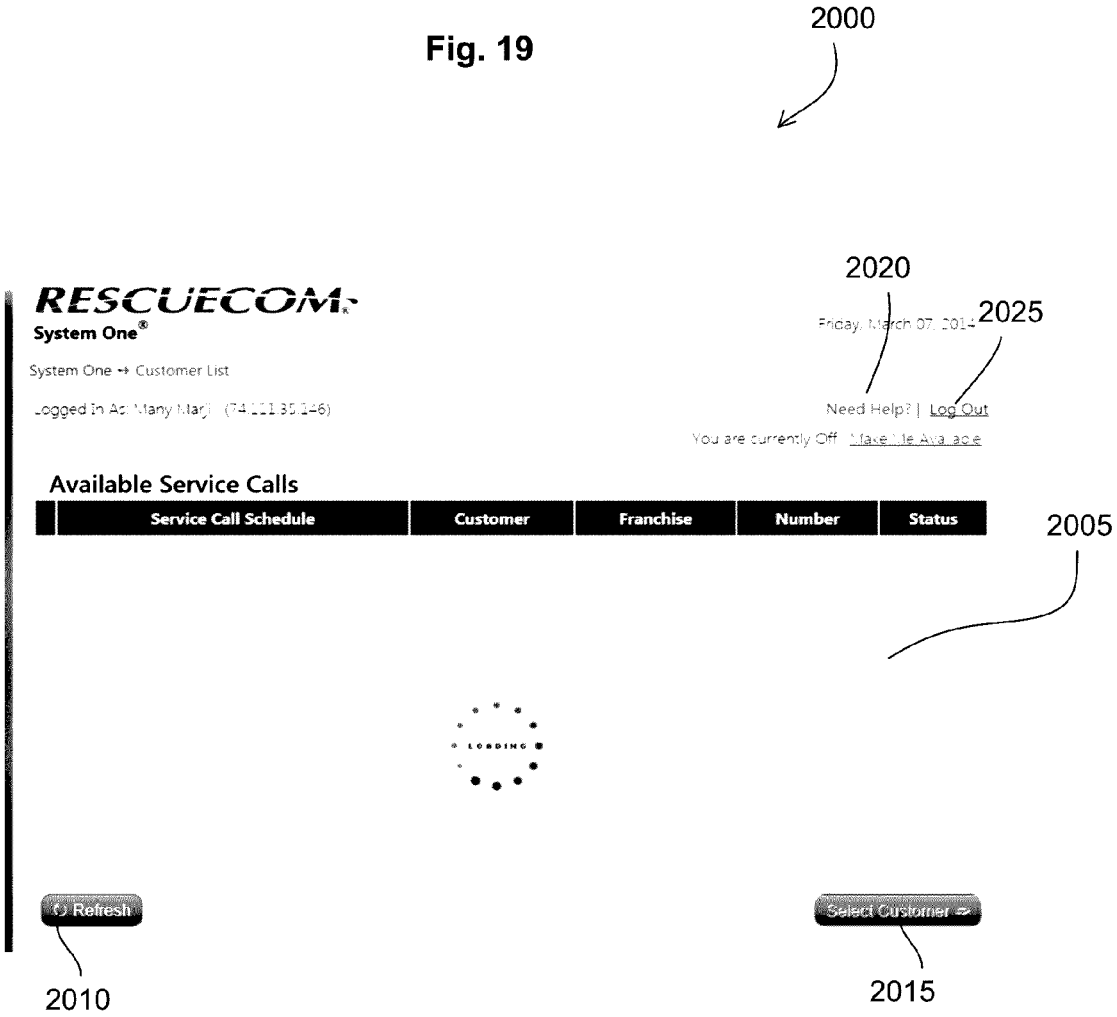
Patented - Patent Number 6,898,435
Additional Patents Pending

Fig. 19


2000
RESCUECOM
System One®
System One → Customer List
2020
2025
Need Help? | Log Out
You are currently Off
Available Service Calls
Service Call Schedule
Customer
Franchise
Number
Status
2005
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Select Customer
2010
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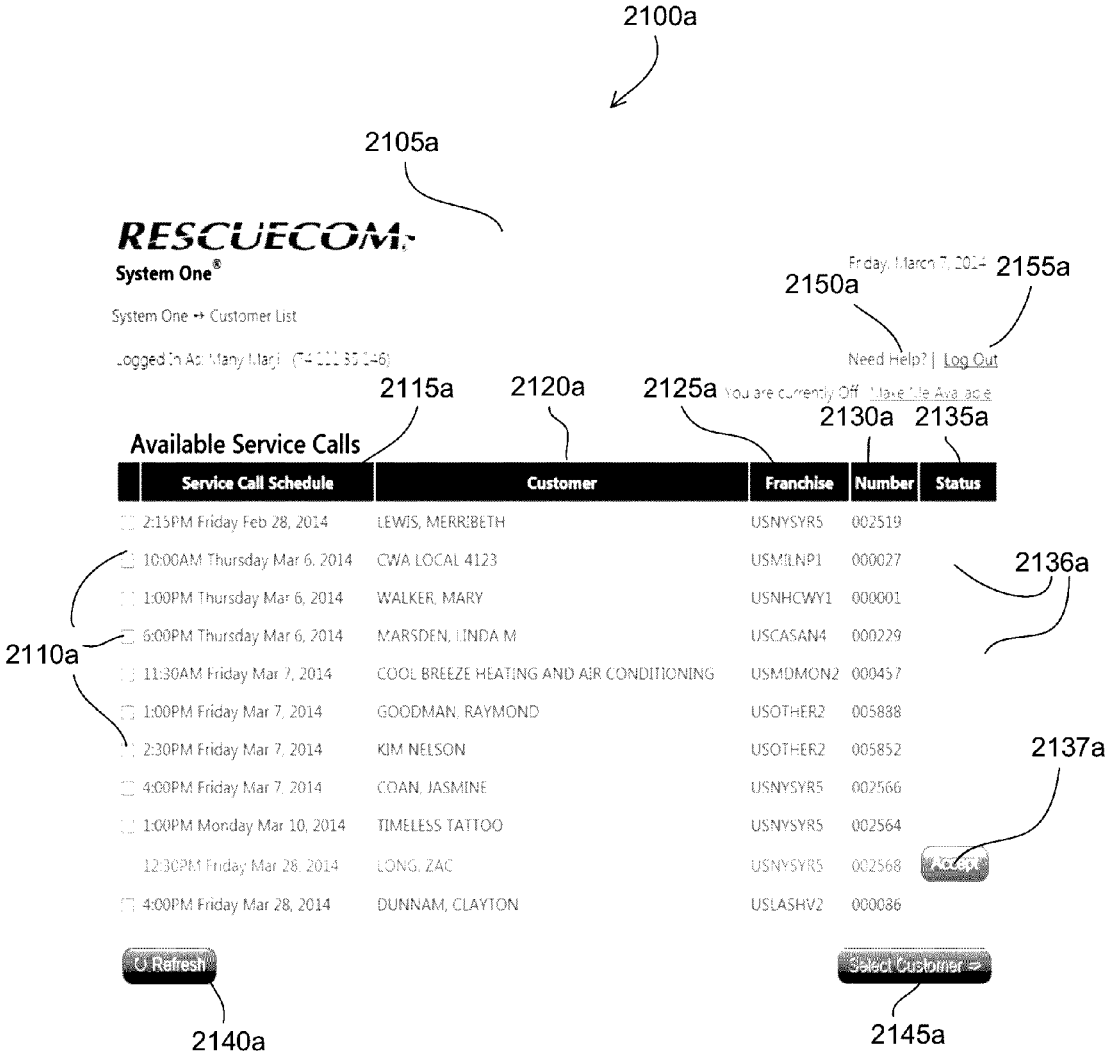
Fig. 20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2130a
2135a
Available Service Calls
Service Call Schedule
Customer
Franchise
Number
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4:00PM Friday Mar 7, 2014 COAN, JASMINE USNYSYR5 002566
1:00PM Monday Mar 10, 2014 TIMELESS TATTOO USNYSYR5 002564
12:30PM Friday Mar 28, 2014 LONG, ZAC USNYSYR5 002568
4:00PM Friday Mar 28, 2014 DUNNAM, CLAYTON USLASHV2 000086
2110a
2136a
2137a
Refresh
Select Customer
2140a
2145a

Fig. 21A

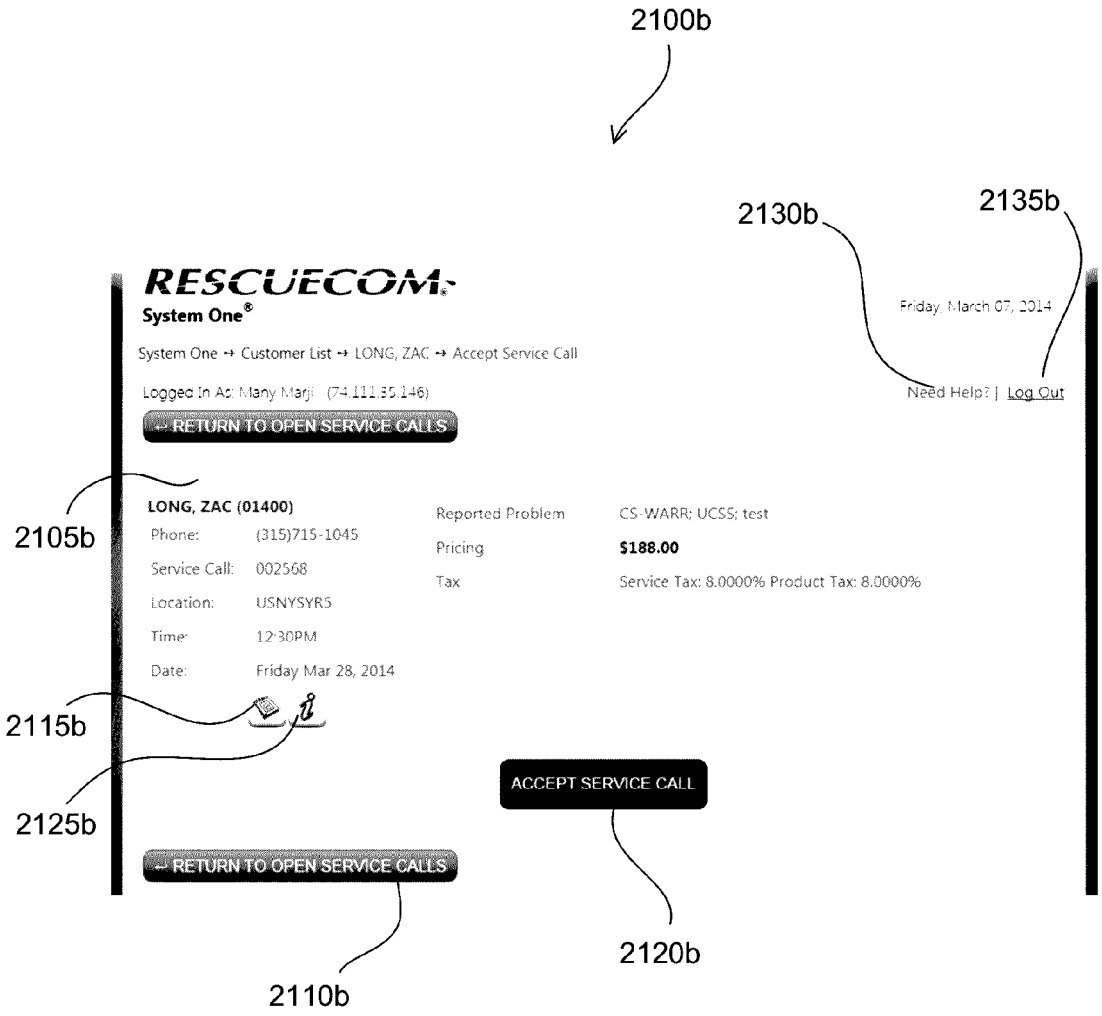

2100b
2130b
2135b
RESCUECOM
System One®
Friday, March 07, 2014
System One → Customer List → LONG, ZAC → Accept Service Call
Logged In As: Many Marji (74.111.35.146)
Need Help? | Log Out
← RETURN TO OPEN SERVICE CALLS
2105b
LONG, ZAC (01400)
Phone: (315)715-1045
Service Call: 002568
Location: USNYSYR5
Time: 12:30PM
Date: Friday Mar 28, 2014
Reported Problem CS-WARR; UCS5; test
Pricing $188.00
Tax Service Tax: 8.0000% Product Tax: 8.0000%
2115b
2125b
ACCEPT SERVICE CALL
← RETURN TO OPEN SERVICE CALLS
2120b
2110b

Fig. 21B

2200
Finishing Up
2205
Service Total (Including Tax) :
Total Due (Including Tax) :
2220
2225
2215
2210

Fig. 22

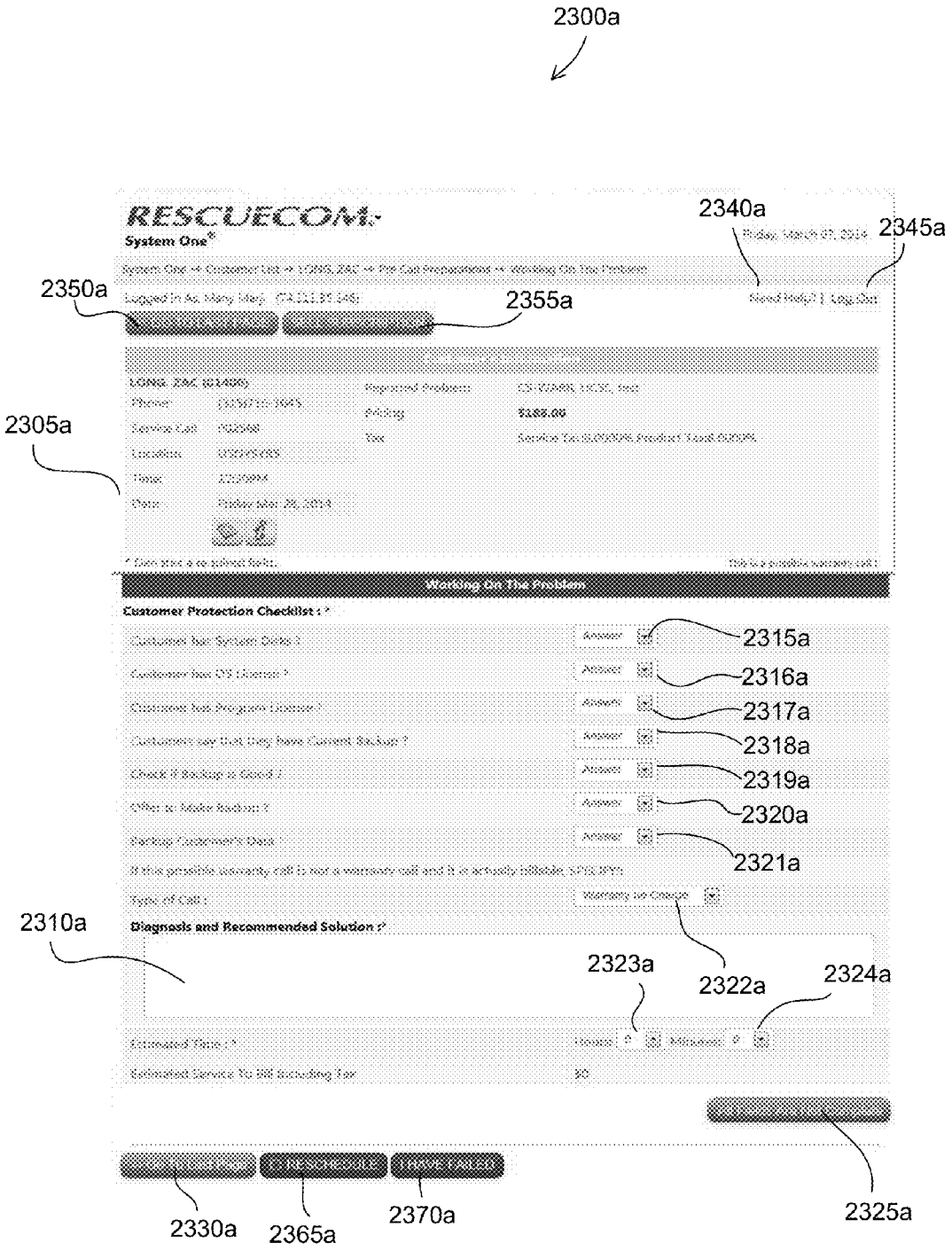

2300a
RESCUECOM
System One
2340a
2345a
2350a
2355a
2305a
Working On The Problem
Customer Protection Checklist :
2315a
2316a
2317a
2318a
2319a
2320a
2321a
2310a
Diagnosis and Recommended Solution :
2323a
2322a
2324a
2330a
2365a
2370a
2325a

Fig. 23A

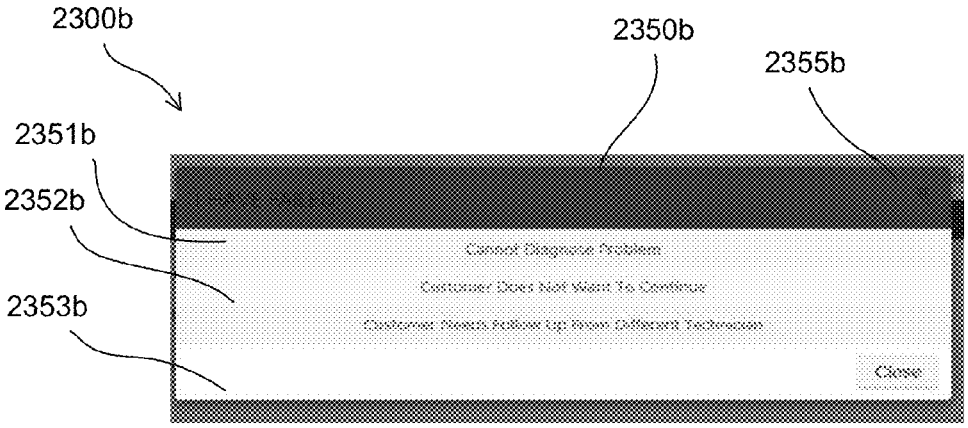


Fig. 23B

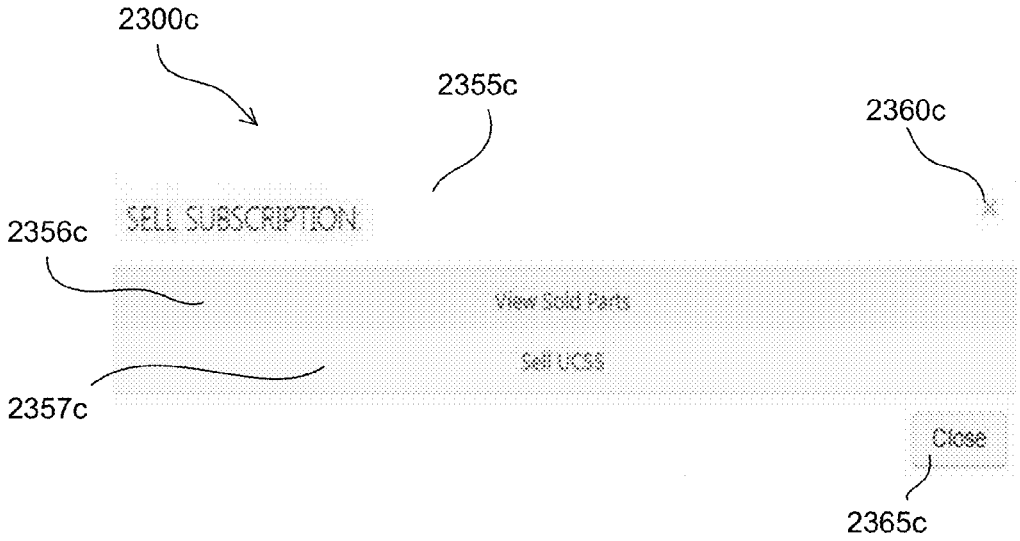


Fig. 23C

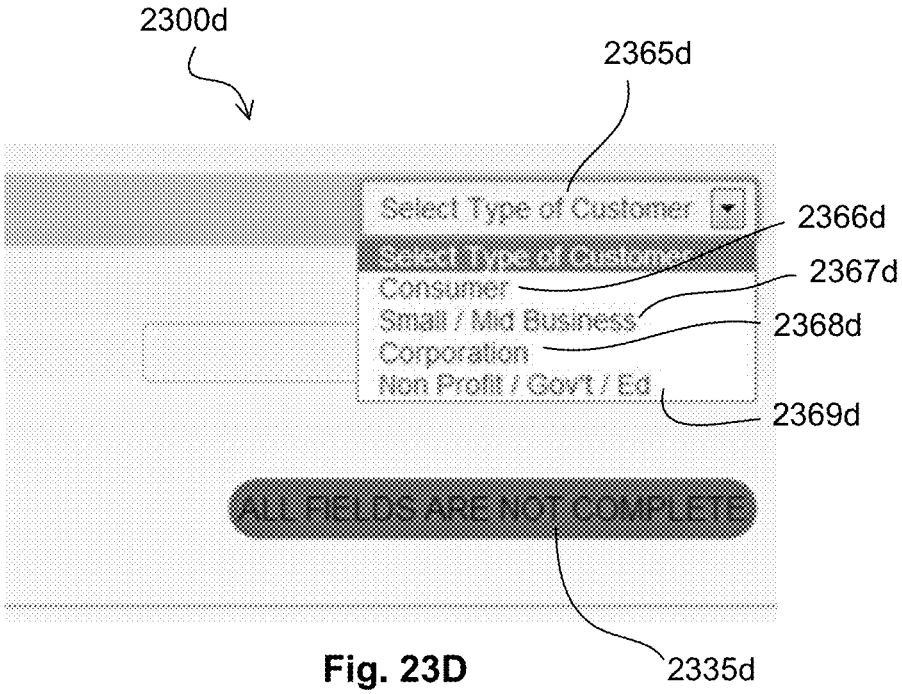


Fig. 23D

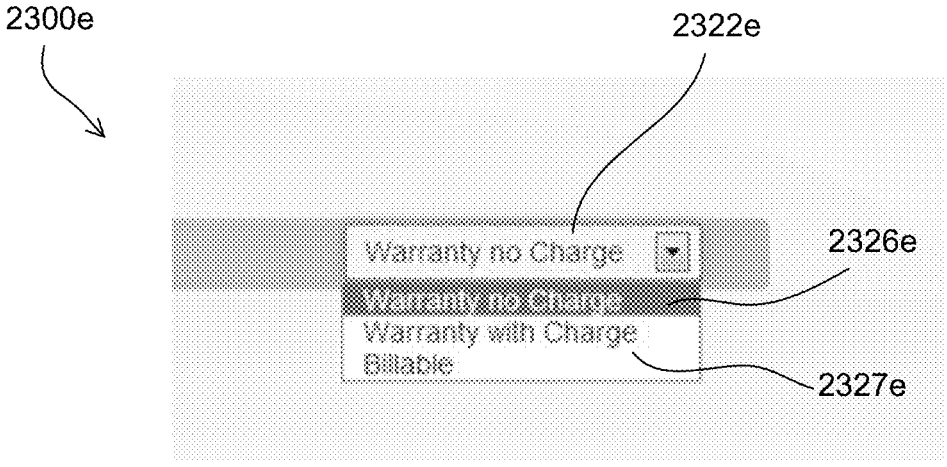
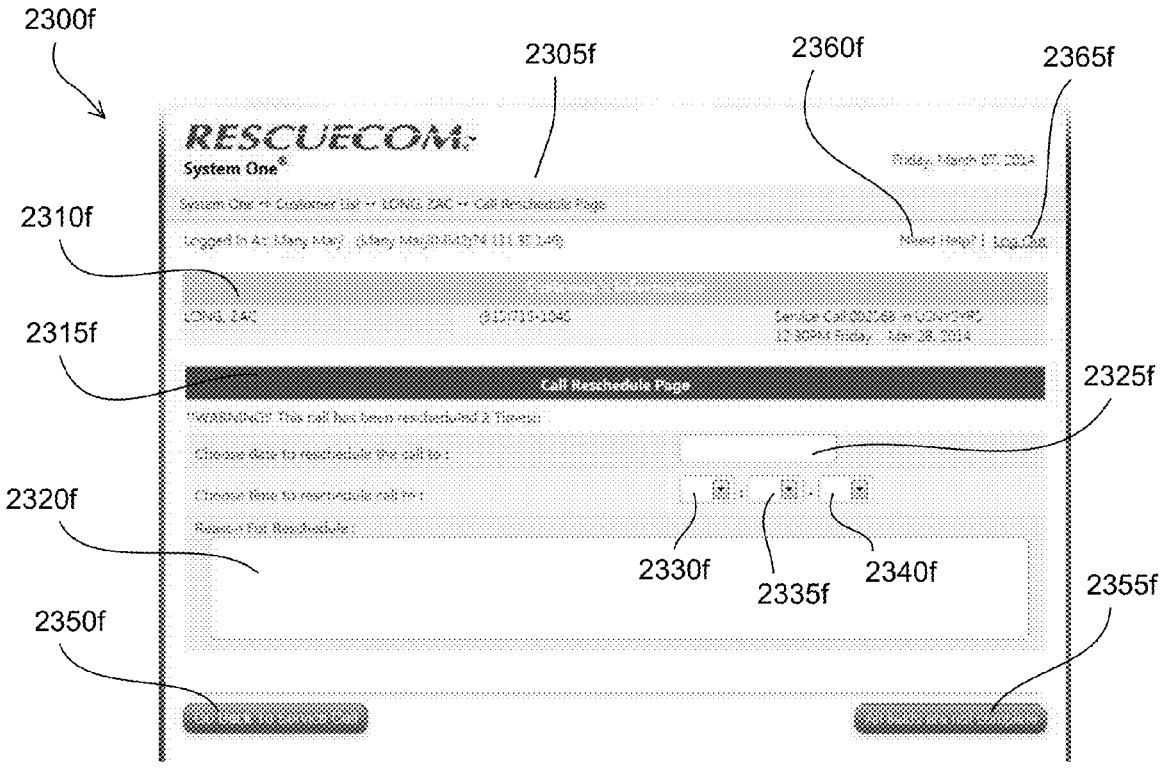
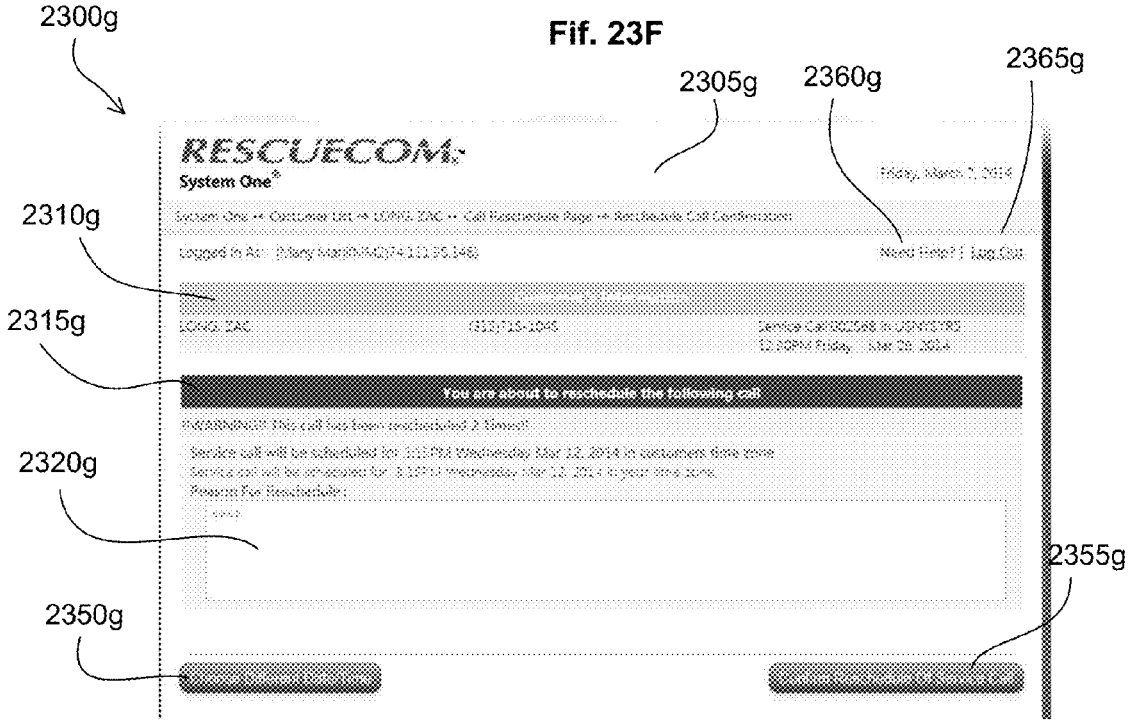


Fig. 23E



Fif. 23F



Fif. 23G

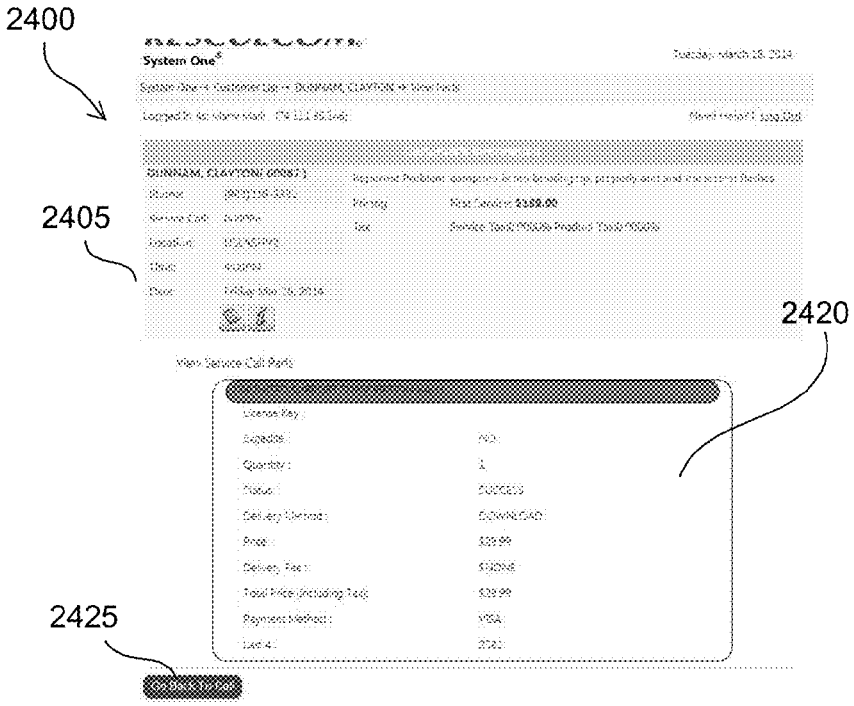

2400
2405
2420
2425

Fig. 24

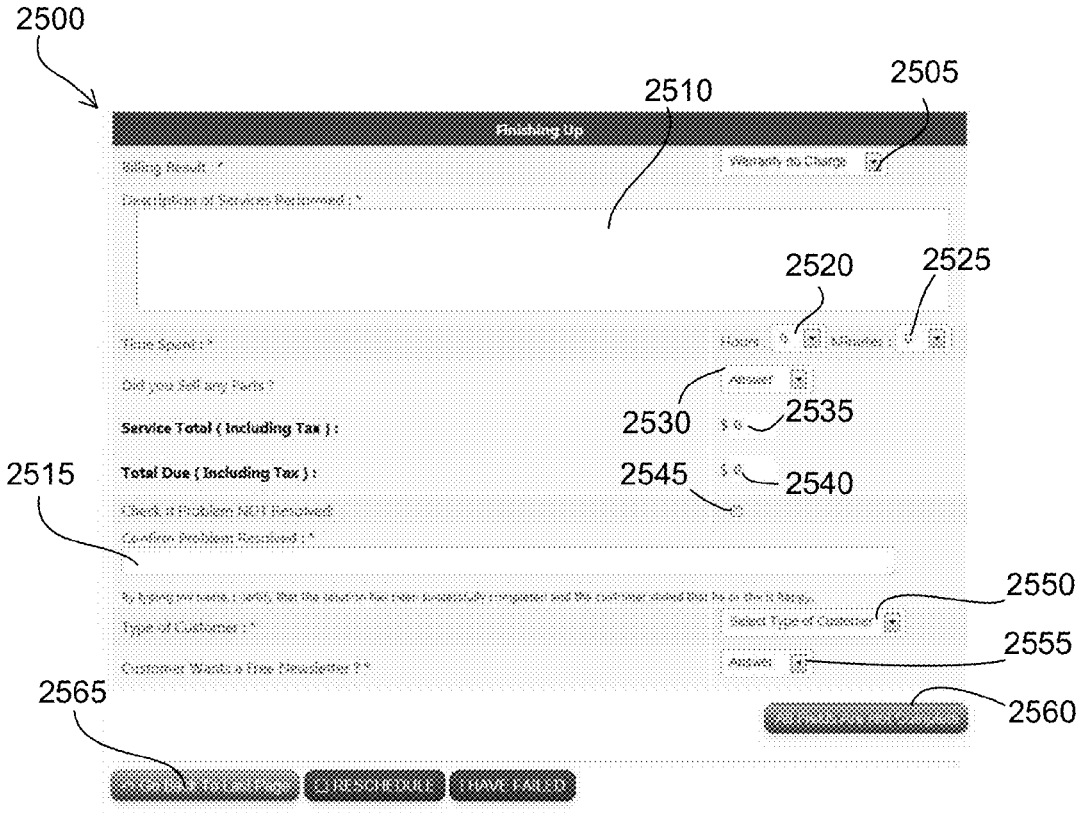

2500
2510
2505
2520
2525
2530
2535
2515
2545
2540
2550
2555
2565
2560

Fig. 25

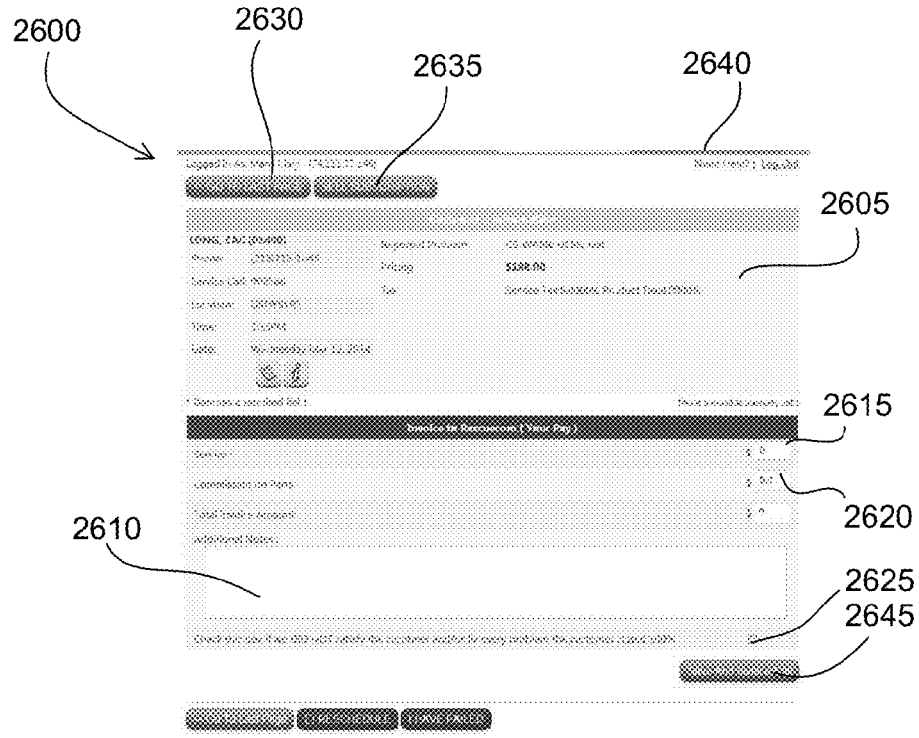

2600
2630
2635
2640
2605
2615
2620
2610
2625
2645

Fig. 26

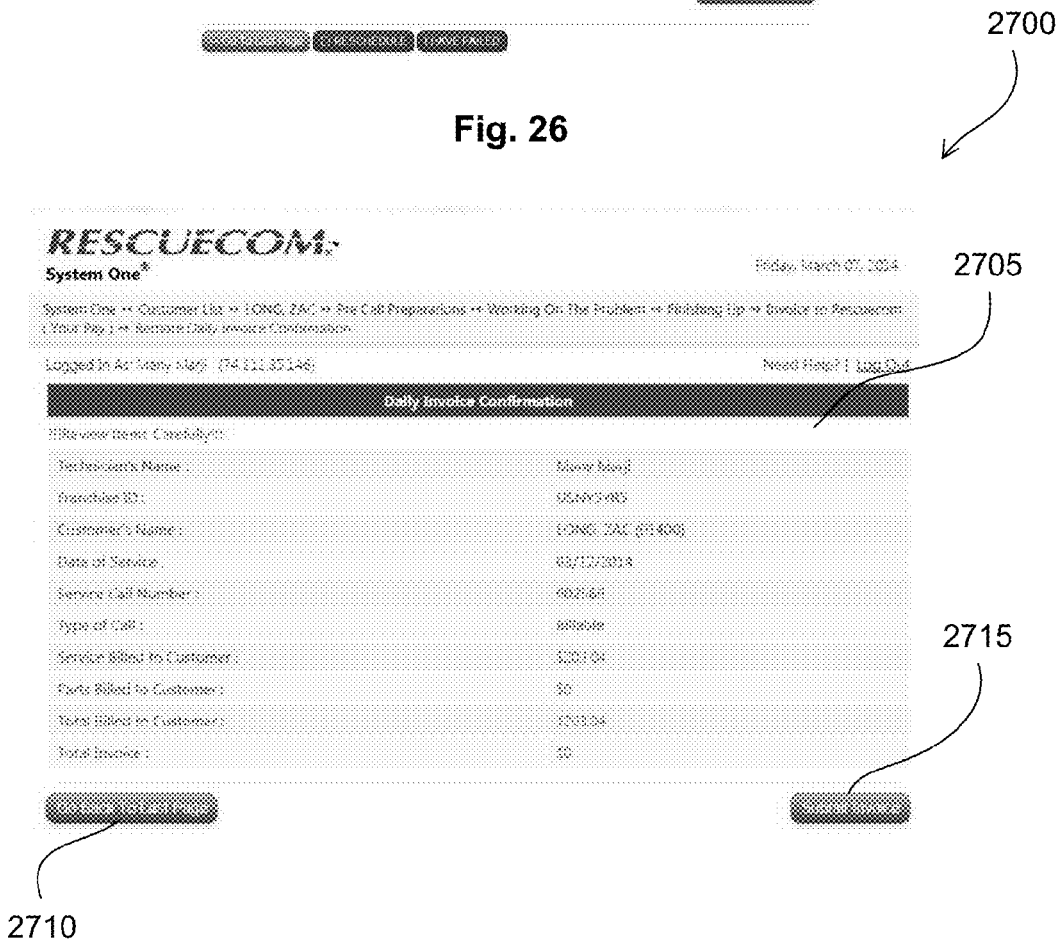

2700
RESCUECOM
System One
2705
Daily Invoice Confirmation
2715
2710

Fig. 27

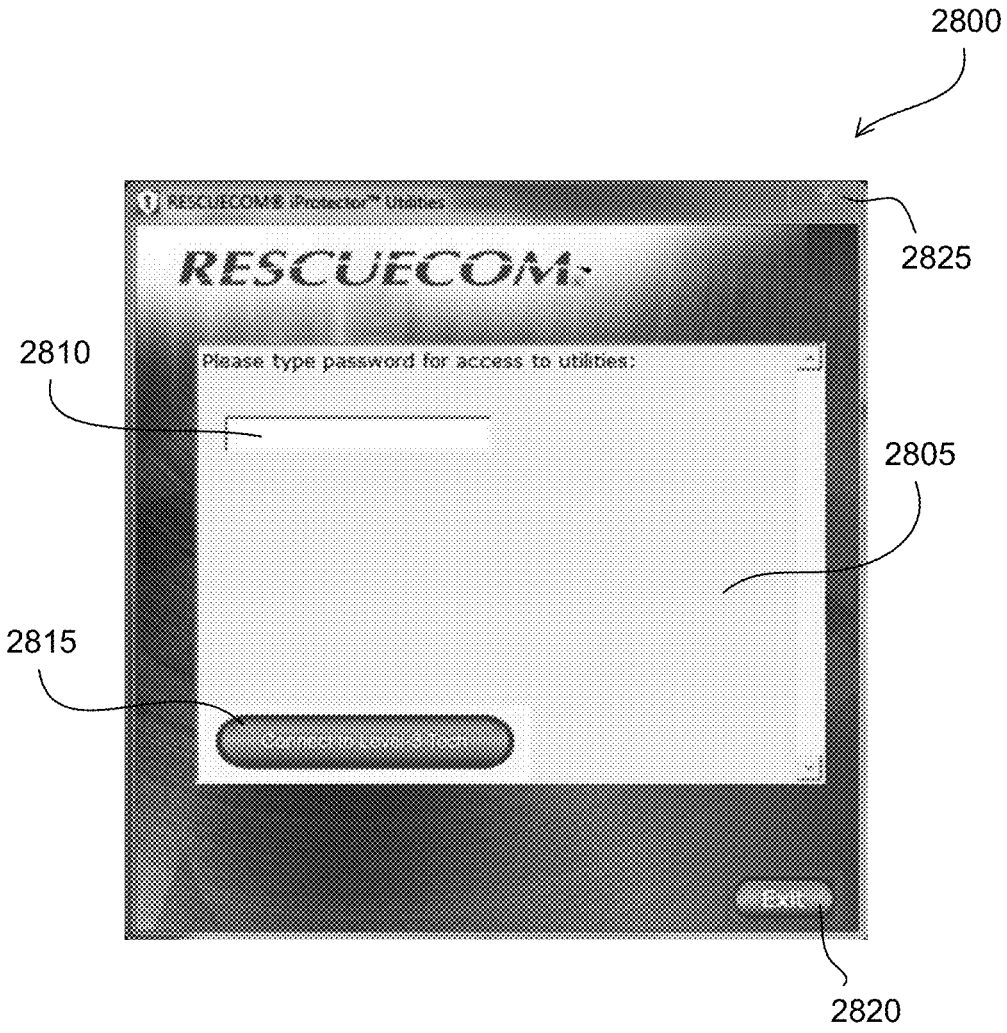

2800
RESCUECOM
Please type password for access to utilities:
2825
2810
2805
2815
2820

Fig. 28

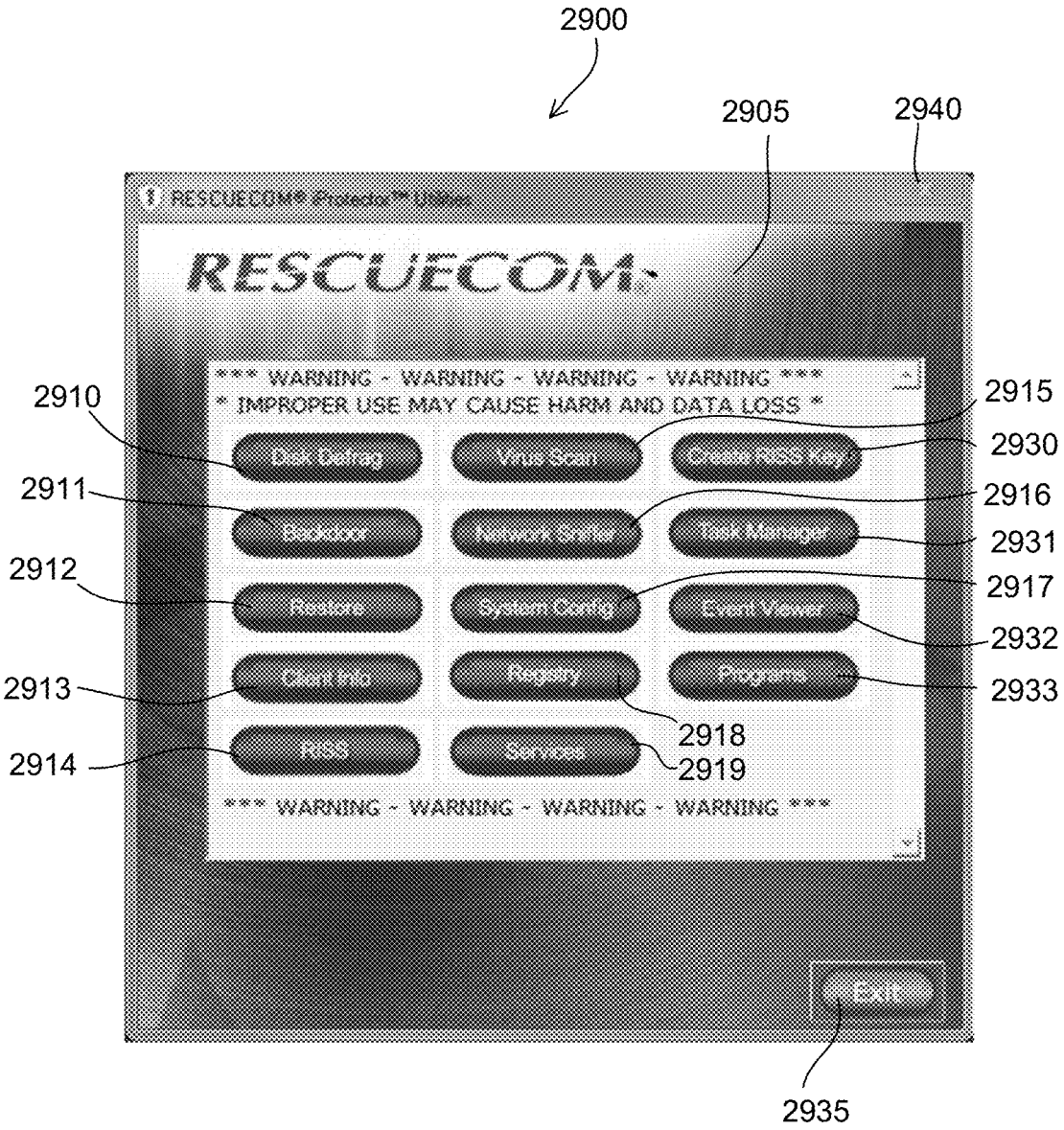

2900
2905
2940
RESCUECOM
*** WARNING - WARNING - WARNING - WARNING ***
* IMPROPER USE MAY CAUSE HARM AND DATA LOSS *
Disk Defrag
Virus Scan
Create RESS Key
Backup
Network Sniffer
Task Manager
Restore
System Config
Event Viewer
Client Info
Registry
Programs
RESS
Services
*** WARNING - WARNING - WARNING - WARNING ***
Exit
2910
2911
2912
2913
2914
2915
2930
2916
2931
2917
2932
2933
2918
2919
2935

Fig. 29

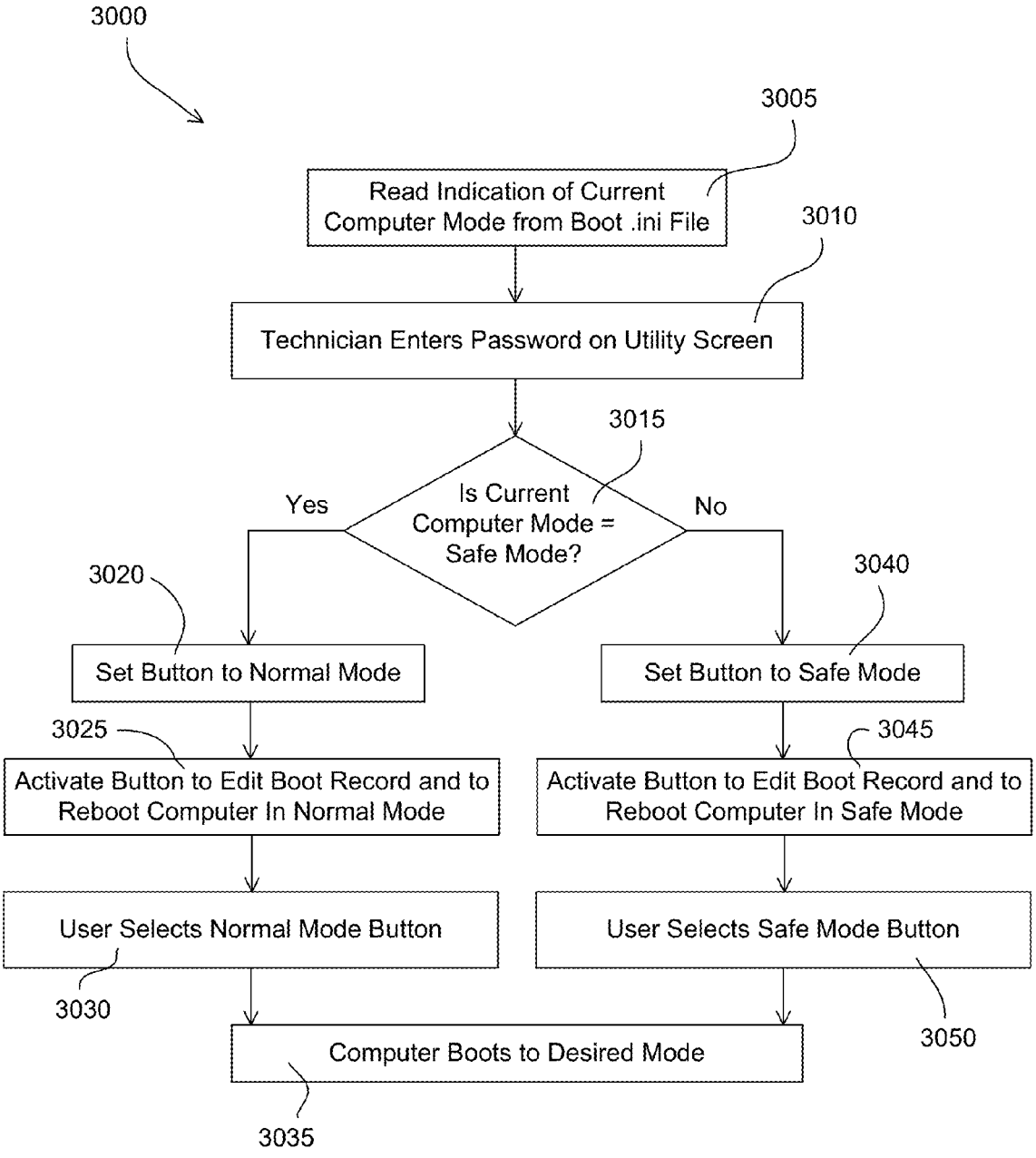

3000
3005
Read Indication of Current Computer Mode from Boot .ini File
3010
Technician Enters Password on Utility Screen
3015
Is Current Computer Mode = Safe Mode?
Yes
No
3020
Set Button to Normal Mode
3040
Set Button to Safe Mode
3025
Activate Button to Edit Boot Record and to Reboot Computer In Normal Mode
3045
Activate Button to Edit Boot Record and to Reboot Computer In Safe Mode
User Selects Normal Mode Button
User Selects Safe Mode Button
3030
3050
Computer Boots to Desired Mode
3035

Fig. 30

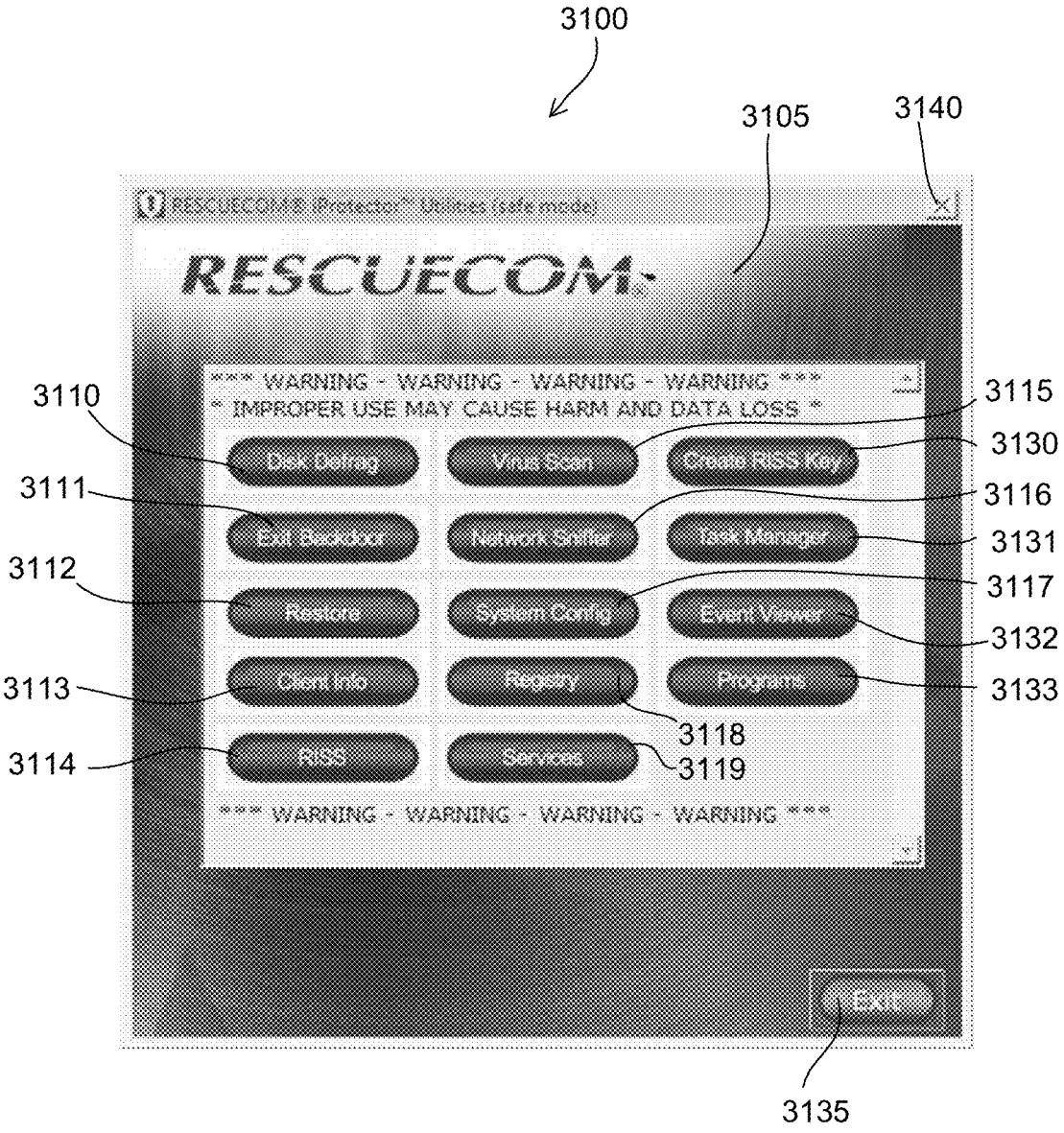

3100
3105
3140
RESCUECOM
*** WARNING - WARNING - WARNING - WARNING ***
* IMPROPER USE MAY CAUSE HARM AND DATA LOSS *
Disk Defrag
Virus Scan
Create RISS Key
Edit Backdoor
Network Sniffer
Task Manager
Restore
System Config
Event Viewer
Client Info
Registry
Programs
RISS
Services
*** WARNING - WARNING - WARNING - WARNING ***
Exit
3110
3111
3112
3113
3114
3115
3130
3116
3131
3117
3132
3133
3118
3119
3135

Fig. 31

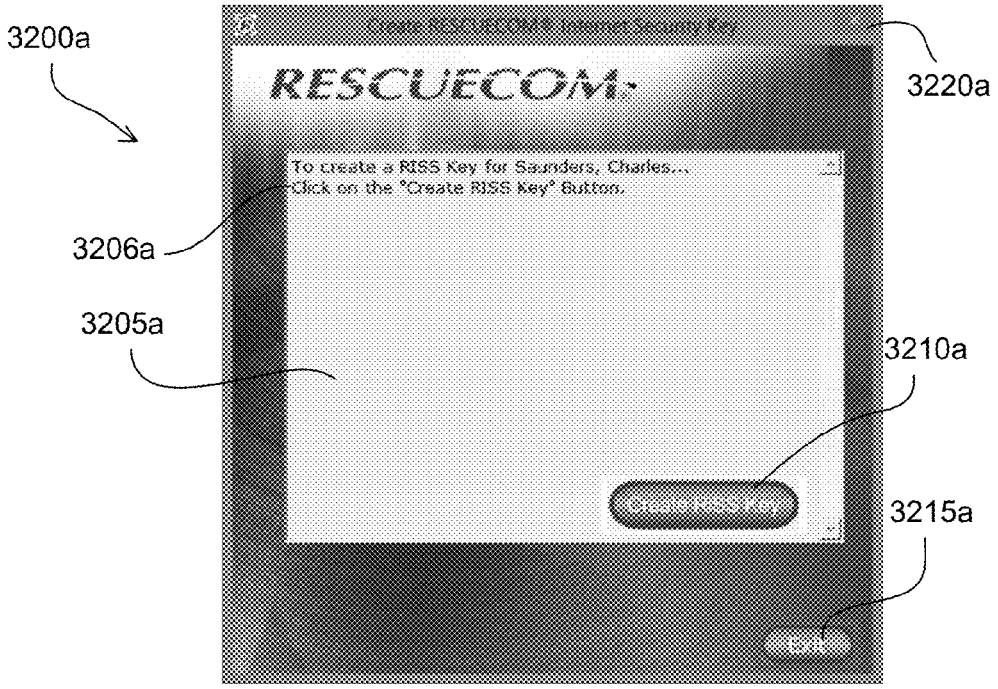


Fig. 32A

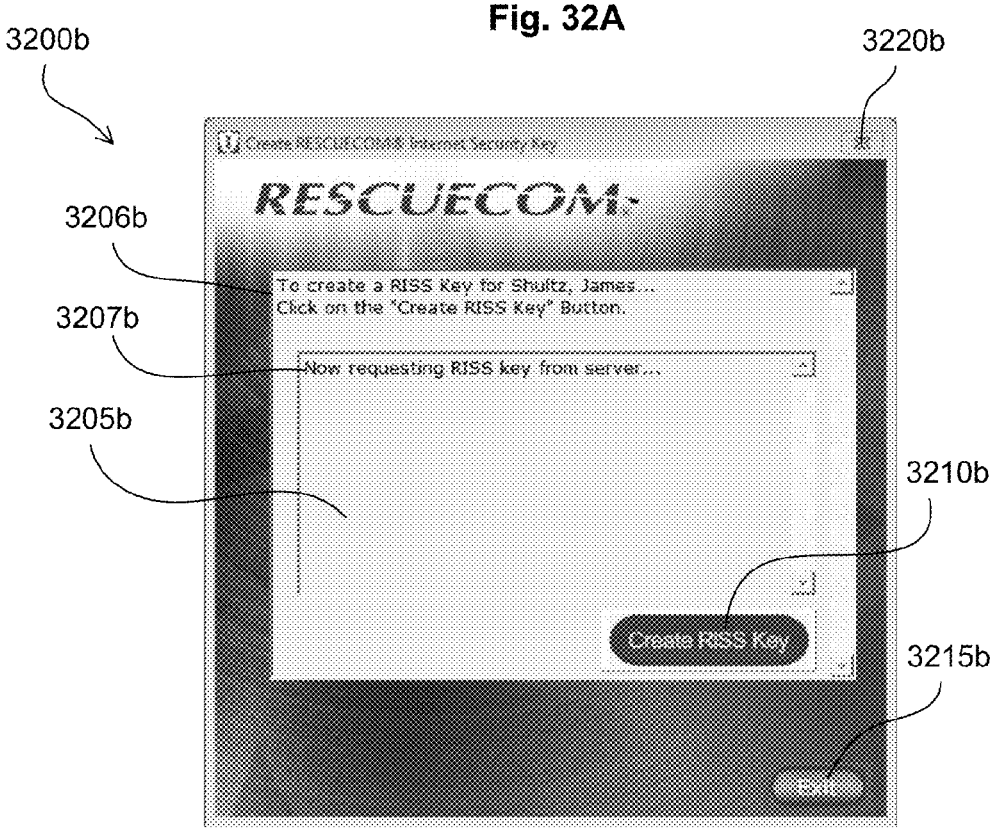


Fig. 32B

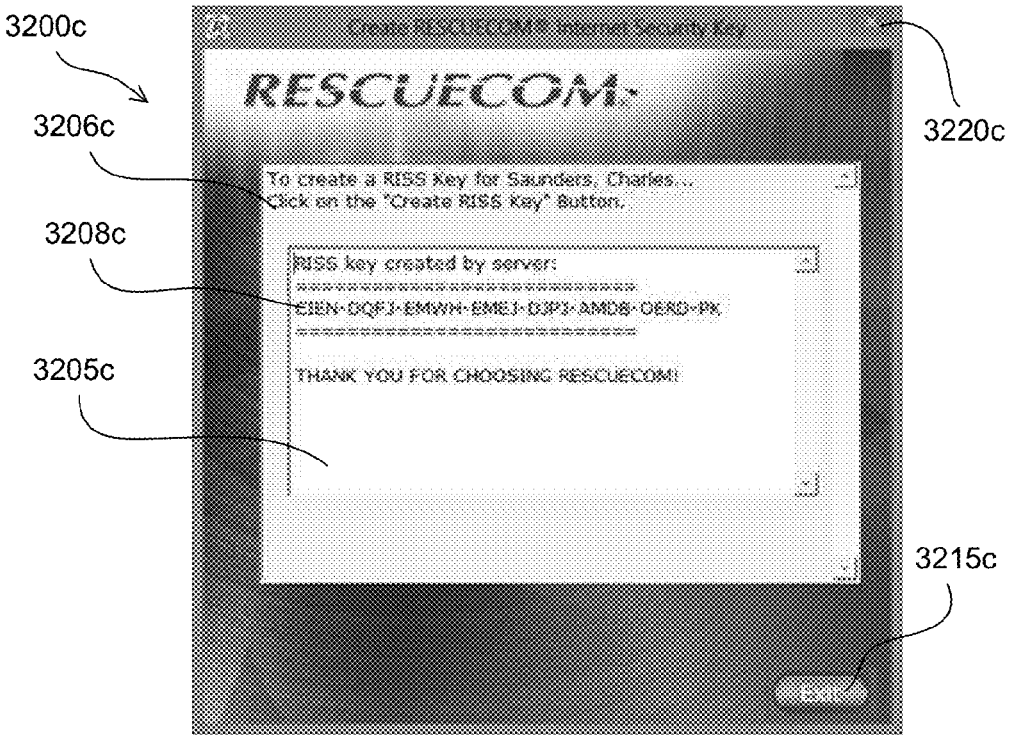


Fig. 32C

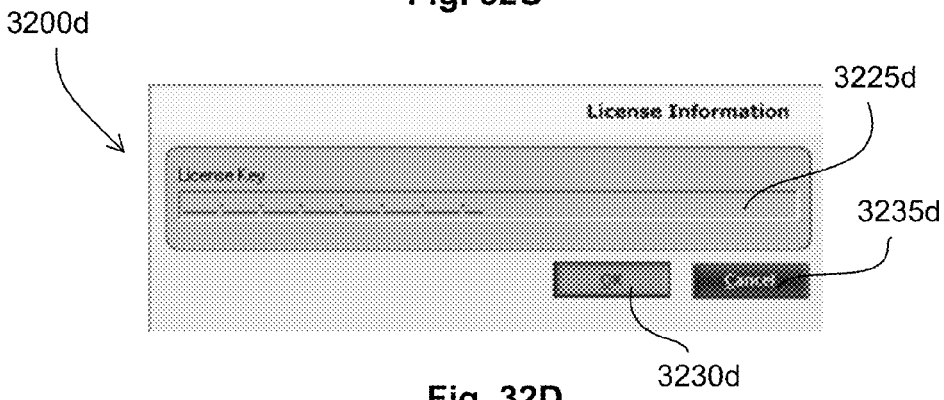


Fig. 32D

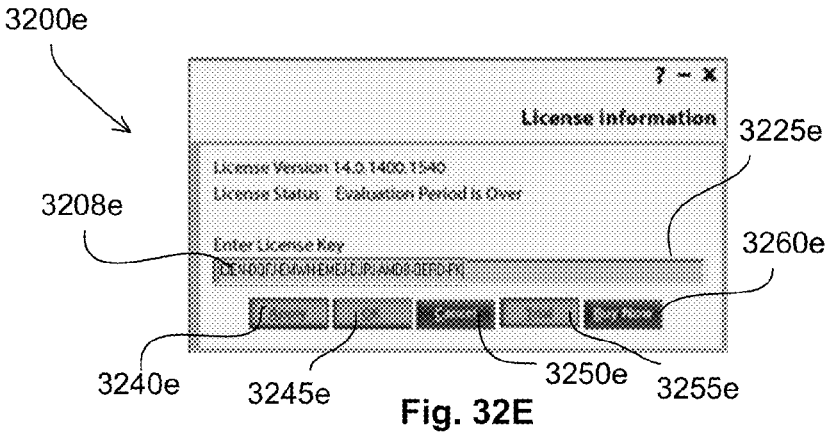


Fig. 32E

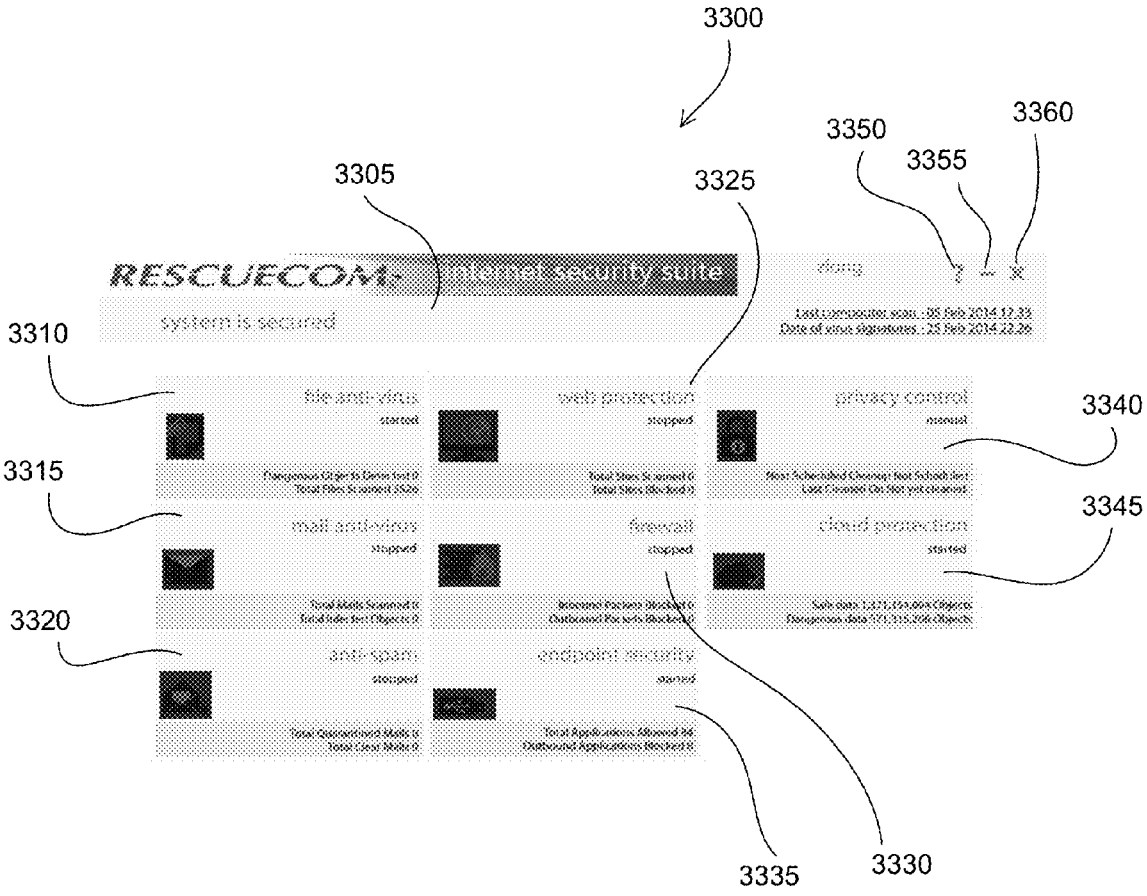

3300
3305
3310
3315
3320
3325
3330
3335
3340
3345
3350
3355
3360
RESCUECOM
system is secured
file anti-virus
started
web protection
stopped
privacy control
mail anti-virus
stopped
firewall
stopped
cloud protection
started
anti-spam
stopped
endpoint security
started

Fig. 33

SYSTEMS AND METHODS FOR MANAGING DISTRIBUTED SALES, SERVICE AND REPAIR OPERATIONS

RELATED DISCLOSURES

The present disclosure is related to commonly owned U.S. Pat. No. 6,898,435, U.S. Patent Application Publication No. 20070192172 and U.S. Patent Application Publication No. 20070267859, the entire disclosures of which are incorporated herein by reference.

TECHNICAL FIELD

The systems and methods of the present disclosure are generally related to managing distributed sales, service and repair operations. In particular, the systems and methods of the present disclosure relate to managing a distributed network of sales, service and/or repair operations that include automated features.

BACKGROUND

In the past, devices, such as computers, printers, mobile telephones, appliances and the like, were purchased from a "bricks and mortar" retail store. When a device is purchased from a retail store, the buyer typically relies on the retail store to provide service and/or repair for the device.

More recently, retail stores are being displaced by on-line and telephone sales of devices. As a result of on-line and telephone sales of devices, in-store service and repair is often unavailable.

Thus, systems and methods are needed for managing distributed sales, service and repair operations. Furthermore, systems and methods are needed for providing on-site sales, service and repair of devices. Moreover, systems and methods are needed for providing remote sales, service and repair of devices that are geographically distributed.

SUMMARY

A computer implement method is provided for establishing a client account with a provider. The method may include receiving, at a processor of a computer system, client personal data, wherein the client personal data is representative of client personal information. The method may further include receiving, at a processor of a computer system, client device data, wherein the client device data is representative of a unique identifier of a particular client device. The method may also include generating, using a processor of the computer system, client subscription data, wherein the client subscription data is based, at least in part, on the client device data. The method may yet further include generating, using a processor of the computer system, client account data, wherein the client account data is based, at least in part, on the client personal data and the client subscription data.

In one embodiment, a computer system for generating and storing client account data is provided. The computer system may include a client personal data receiving module, stored on a memory of a central computer system, that, when executed by a processor of the central computer system, causes the processor of the central computer system to receive client personal data, wherein the client personal data is representative of client personal information. The computer system may further include a client device data receiving module, stored on the memory of the central computer system, that, when executed by the processor of the central computer system, causes the processor of the central computer system to receive client device data, wherein the client device data is representative of a unique identifier of a particular client device. The computer system may also include a client subscription data generation module, stored on the memory of the central computer system, that, when executed by the processor of the central computer system, causes the processor of the central computer system to generate client subscription data, wherein the client subscription data is based, at least in part, on the client device data. The computer system may yet further include a client account data generation module, stored on the memory of the central computer system, that, when executed by the processor of the central computer system, causes the processor of the central computer system to generate client account data, wherein the client account data is based, at least in part, on the client personal data and the client subscription data. The computer system may also include a client account data storage module, stored on the memory of the central computer system, that, when executed by the processor of the central computer system, causes the processor of the remote computer system to store the client account data in a client database.

In another embodiment, a non-transitory computer readable-medium storing instructions is provided that, when executed by a processor, cause the processor to establish a remote service session between a remote computer system and a client computer. The non-transitory computer readable-medium may include a client personal data receiving module that, when executed by a processor of the central computer system, causes the processor of the central computer system to receive client personal data, wherein the client personal data is representative of client personal information. The non-transitory computer readable-medium may further include a client device data receiving module that, when executed by the processor of the central computer system, causes the processor of the central computer system to receive client device data, wherein the client device data is representative of a unique identifier of a particular client device. The non-transitory computer readable-medium may also include a client subscription data generation module that, when executed by the processor of the central computer system, causes the processor of the central computer system to generate client subscription data, wherein the client subscription data is based, at least in part, on the client device data. The non-transitory computer readable-medium may yet further include a client account data generation module that, when executed by the processor of the central computer system, causes the processor of the central computer system to generate client account data, wherein the client account data is based, at least in part, on the client personal data and the client subscription data. The non-transitory computer readable-medium may also include a client account data storage module that, when executed by the processor of the central computer system, causes the processor of the remote computer system to store the client account data in a client database.

In a further embodiment, a computer implement method is provided to reboot a client device in a normal operating mode when the client device is currently operating in a safe operating mode and to reboot the client device to a safe operating mode when the client device is currently operating in a normal operating mode. The method may include receiving, at a processor, client device operating mode data, wherein the client device operating mode data is indicative of a current operating mode of the client device. The method

may further include determining, using a processor, whether the client device is currently operating in a safe operating mode or a normal operating mode based on the client device operating mode data. The method may also include generating, using a processor, a mode icon on a display device, wherein the mode icon indicates whether the client device is determined to be currently operating in safe operating mode or normal operating mode. The method may yet further include activating, using a user interface device, the mode icon, wherein activating the mode icon causes the client device to reboot to safe mode when the client device is determined to be currently operating in normal operating mode and wherein activating the mode icon causes the client device to reboot to normal operating mode when the client device is determined to be currently operating in safe operating mode.

In yet another embodiment, a computer system to reboot a client device in a normal operating mode when the client device is currently operating in a safe operating mode and to reboot a client device in a safe operating mode when the client device is currently operating in a normal operating mode is provided. The computer system may include a client device operating mode determination module, stored on a memory, that, when executed by a processor, causes the processor to determine, based on client device operating mode data, whether the client computer is currently operating in a safe operating mode or a normal operating mode. The computer system may further include a client device mode icon module, stored on a memory, that, when executed by a processor, causes the processor to generate, based on the operating mode data, an operating mode icon on a display device, wherein the mode icon indicates whether the client device is determined to be currently operating in safe operating mode or normal operating mode. The computer system may also include a client device mode icon activation module, stored on a memory, that, when executed by a processor, causes the processor to receive user interface data, wherein the user interface data is indicative of a user selecting the operating mode icon. The computer system may yet further include a mode reboot module, stored in a memory, that, when executed by a processor, causes the processor to, in response to receiving the user interface data, reboot the client device to the safe operating mode when the client device is determined to currently be operating in the normal operating mode or causes the processor to reboot the client device to the normal operating mode when the client device is determined to currently be operating in the safe operating mode.

In yet a further embodiment, a non-transitory computer-readable medium having instructions stored thereon is provided that, when executed by a processor, cause the processor to reboot a client device to a normal operating mode from a safe operating mode and to reboot the client device to a safe operating mode from a normal operating mode. The non-transitory computer-readable medium may include a client device operating mode determination module that, when executed by a processor, causes the processor to determine, based on client device operating mode data, whether the client computer is currently operating in a safe operating mode or a normal operating mode. The non-transitory computer-readable medium may further include a client device mode icon module that, when executed by a processor, causes the processor to generate, based on the operating mode data, an operating mode icon on a display device, wherein the mode icon indicates whether the client device is determined to be currently operating in safe operating mode or normal operating mode. The non-transitory computer-readable medium may also include a client device mode icon activation module that, when executed by a processor, causes the processor to receive user interface data, wherein the user interface data is indicative of a user selecting the operating mode icon. The non-transitory computer-readable medium may yet further include a mode reboot module that, when executed by a processor, causes the processor to, in response to receiving the user interface data, reboot the client device to the safe operating mode when the client device is determined to currently be operating in the normal operating mode or causes the processor to reboot the client device to the normal operating mode when the client device is determined to currently be operating in the safe operating mode.

In even another embodiment, a computer implement method is provided to establish a remote service session between a client device and a remote computer system. The method may include storing, in a memory of the client device, a remote service session establishment module that, when executed by a processor, causes the processor to initiate a remote service session request between the client device and the remote computer. The method may further include activating, via a user interface associated with the client device, the remote service session establishment module. The method may also include retrieving, at a processor of a computer device, a unique identification of the client device. The method may yet further include determining, using a processor of a computer device, whether the unique identification of the client device matches an entry stored in a memory. The method may even further include establishing a remote service session between the remote computer system and the client device only when the unique identification of the client device is determined to match the entry stored in the memory. The method may even yet further include determining a client account associated with the client device when a remote service session is established.

In even a further embodiment, a computer system is provided that may facilitate a remote service session between a client device and a remote computer. The computer system may include a remote service session initiation module stored on a memory of the client device that, when executed by a processor of the client device, causes the processor to initiate a remote service session request between the client device and the remote computer. The computer system may further include a client device identification module stored on a memory that, when executed by a processor, causes the processor to retrieve a unique identification of the client device when the remote service session initiation module is executed. The computer system may also include a client device verification module stored on a memory that, when executed by a processor, causes the processor to determine whether the unique identification of the client device matches an entry stored in a memory. The computer system may even further include a remote service session establishment module stored on a memory that, when executed by a processor, causes the processor to establish a remote service session between the remote computer system and the client device only when the unique identification of the client device is determined to match the entry stored in the memory.

In even yet another embodiment, a non-transitory computer-readable medium is provided having instructions stored thereon that, when executed by a processor, cause the processor to facilitate a remote service session between a client device and a remote computer. The non-transitory computer-readable medium may include a remote service session initiation module that, when executed by a processor

of the client device, causes the processor to initiate a remote service session request between the client device and the remote computer. The non-transitory computer-readable medium may further include a client device identification module that, when executed by a processor, causes the processor to retrieve a unique identification of the client device when the remote service session initiation module is executed. The non-transitory computer-readable medium may also include a client device verification module that, when executed by a processor, causes the processor to determine whether the unique identification of the client device matches an entry stored in a memory. The non-transitory computer-readable medium may yet further include a remote service session establishment module that, when executed by a processor, causes the processor to establish a remote service session between the remote computer system and the client device only when the unique identification of the client device is determined to match the entry stored in the memory.

In another embodiment, a computer implement method for a technician to remotely service a client device is provided. The method may include storing, in a memory of the client device, a remote service module that, when executed by a processor of the client device, causes the processor of the client device to transmit client service request data to a remote computer device, wherein the client service request data is representative of a client request for service. The method may further include transmitting, using the processor of the client device, the client service request data, from the client device to a remote computing device, in response to a client activating a user interface connected to the client device. The method may also include receiving, at a processor of a remote computing device, the client service request data. The method may yet further include generating, user the processor of the remote computing device, a display of user interface on a display device of the remote computing device, wherein the user interface includes a customer selection feature. The method may further include receiving, at the processor of the remote computing device, client selection data, wherein the client selection data is indicative of a technician selecting the customer selection feature of the user interface. The method may also include transmitting, using the processor of the remote computing device, client selection data, from the remote computing device to the client device, wherein the client selection data is indicative of the technician selecting the customer selection feature. The method may yet further include receiving, at the processor of the remote computing device, client acknowledgment data in response to a client acknowledging that the technician has selected the customer selection feature, where in the client acknowledgment data is indicative of approval by the client to allow the technician to remotely service the client device.

In yet another embodiment, a computer system for a technician to remotely service a client device is provided. The computer system may include a remote service module, stored on a memory, that, when executed by a processor, causes the processor to communicate client service request data, wherein the client service request data is representative of a client request for service. The computer system may further include a client service request user interface generation module, stored on a memory, that, when executed by a processor, causes the processor to generate a display of user interface on a display device of the remote computing device, wherein the user interface includes a customer selection feature. The computer system may yet further include a client selection module, stored on a memory, that, when executed by a processor, causes the processor to client selection data, wherein the client selection data is indicative of a technician selecting the customer selection feature. The computer system may also include further execution of the remote service module initiates remote service of the client device by a technician.

In yet a further embodiment, a non-transitory computer-readable medium having instructions stored thereon that, when executed by a processor, cause the processor to facilitate a remote service session for a technician to remotely service a client device is provided. The non-transitory computer-readable medium may include a remote service module that, when executed by a processor, causes the processor to communicate client service request data, wherein the client service request data is representative of a client request for service. The non-transitory computer-readable medium may further include a client service request user interface generation module that, when executed by a processor, causes the processor to generate a display of user interface on a display device of the remote computing device, wherein the user interface includes a customer selection feature. The non-transitory computer-readable medium may yet further include a client selection module that, when executed by a processor, causes the processor to client selection data, wherein the client selection data is indicative of a technician selecting the customer selection feature. The non-transitory computer-readable medium may also include further execution of the remote service module initiates remote service of the client device by a technician.

In even yet another embodiment, a computer implement method to reboot a client device in a normal operating mode when the client device is currently operating in a safe operating mode and/or to reboot the client device to a safe operating mode when the client device is currently operating in a normal operating mode is provided. The method may include receiving, at a processor, client device operating mode data, wherein the client device operating mode data is indicative of a current operating mode of the client device and determining, using a processor, whether the client device is currently operating in a safe operating mode or a normal operating mode based on the client device operating mode data. The method may also include receiving, at a processor, password data, wherein the password data is representative of user information indicative of whether the user is authorized to reboot the client device in the normal operating mode when the client device is currently operating in the safe operating mode or to reboot the client device to the safe operating mode when the client device is currently operating in the normal operating mode. The method may further include causing, using a processor, the client device to reboot to safe mode when the client device is determined to be currently operating in normal operating mode or causing the client device to reboot to normal operating mode when the client device is determined to be currently operating in safe operating mode in response to receiving the password data.

In even yet another embodiment, a computer implement method to reboot a client device in a normal operating mode when the client device is currently operating in a safe operating mode and/or to reboot the client device to a safe operating mode when the client device is currently operating in a normal operating mode is provided. The method may include receiving, at a processor, client device operating mode data, wherein the client device operating mode data is indicative of a current operating mode of the client device and determining, using a processor, whether the client

device is currently operating in a safe operating mode or a normal operating mode based on the client device operating mode data. The method may also include receiving, at a processor, password data, wherein the password data is representative of user information indicative of whether the user is authorized to reboot the client device in the normal operating mode when the client device is currently operating in the safe operating mode or to reboot the client device to the safe operating mode when the client device is currently operating in the normal operating mode. The method may further include causing, using a processor, the client device to reboot to safe mode when the client device is determined to be currently operating in normal operating mode or causing the client device to reboot to normal operating mode when the client device is determined to be currently operating in safe operating mode in response to receiving the password data.

In another embodiment, a non-transitory computer-readable medium having instructions stored thereon that, when executed by a processor, cause the processor to reboot a client device to a normal operating mode from a safe operating mode and to reboot the client device to a safe operating mode from a normal operating mode is provided. The non-transitory computer-readable medium may include a client device operating mode determination module that, when executed by a processor, causes the processor to determine, based on client device operating mode data, whether the client computer is currently operating in a safe operating mode or a normal operating mode. The non-transitory computer-readable medium may also include a password data receiving module that, when executed by a processor, causes the processor to receive password data, wherein the password data is representative of user information indicative of whether the user is authorized to reboot the client device in the normal operating mode when the client device is currently operating in the safe operating mode or to reboot the client device to the safe operating mode when the client device is currently operating in the normal operating mode. The non-transitory computer-readable medium may further include a mode reboot module that, when executed by a processor, causes the processor to reboot the client device to safe mode when the client device is determined to be currently operating in normal operating mode or causes the processor to reboot the client device to normal operating mode when the client device is determined to be currently operating in safe operating mode in response to receiving the password data.

In yet another embodiment, a computer implement method for automatically generating contact information for at least one potential client is provided. The method may include generating, using a processor, a user interface on a display device of a client device, wherein the user interface has at least one data entry field for receiving information entered by a potential client and generating, using a processor, potential client data in response to the potential client entering the information within the at least one data entry field. The method may also include transmitting, using a processor, the potential client data from the client device to a remote computer in response to the potential client entering the information within the at least one data entry field. The method may further include generating, using a processor, potential client contact data based on the potential client data, wherein the potential client contact data is representative of contact information for a potential client.

In yet a further embodiment, a client device for automatically obtaining contact information for at least one potential client is provided. The computer device may include a user interface generation module, stored on a memory, that, when executed by a processor, causes the processor to generate a user interface on a display device of a client device, wherein the user interface has at least one data entry field for receiving information entered by a potential client. The computer device may also include a potential client data generation module, stored on a memory, that, when executed by a processor, causes the processor to generate potential client data in response to the potential client entering the information within the at least one data entry field. The computer device may further include a potential client data transmission module, stored on a memory, that, when executed by a processor, causes the processor to transmit the potential client data from the client device to a remote computer in response to the potential client entering the information within the at least one data entry field.

In even yet another embodiment, a non-transitory computer readable-medium storing instructions that, when executed by a processor, cause the processor to automatically generate contact information for at least one potential client is provided. The non-transitory computer readable-medium may include a user interface generation module that, when executed by a processor, causes the processor to generate a user interface on a display device of a client device, wherein the user interface has at least one data entry field for receiving information entered by a potential client. The non-transitory computer readable-medium may also include a potential client data generation module that, when executed by a processor, causes the processor to generate potential client data in response to the potential client entering the information within the at least one data entry field. The non-transitory computer readable-medium may further include a potential client data transmission module that, when executed by a processor, causes the processor to transmit the potential client data from the client device to a remote computer in response to the potential client entering the information within the at least one data entry field.

BRIEF DESCRIPTION OF THE DRAWINGS

The figures described below depict various aspects of the systems and methods disclosed herein. It should be understood that each figure depicts an embodiment of a particular aspect of the disclosed systems and methods, and that each of the figures is intended to accord with a possible embodiment thereof. Wherever possible, the following description refers to the reference numerals included in the following figures, in which features depicted in multiple figures are designated with consistent reference numerals.

FIG. **1** depicts a high-level block diagram of an example computer system for managing distributed sales, service and repair operations;

FIG. **2** depicts a flow diagram of an example method for remotely establishing a dialog between a provider and a client;

FIG. **3** depicts a flow diagram of an example method for remotely authenticating an identity of a client device;

FIG. **4** depicts an example user interface for initiating a dialog between a provider and a client;

FIGS. **5**A and **5**B depict example user interfaces for establishing a client account with a provider;

FIGS. **6**A and **6**B depict example user interfaces associated with establishing a remote communication connection between a provider and a client;

FIGS. **7-13** depict various example user interfaces associated with installation of an application on a client device;

FIGS. **14**A and **14**B depict example user interfaces associated with registering an application;

FIGS. **15**A-**15**F depict example user interfaces associated with the remote client device identity authentication method of FIG. **3**;

FIG. **16** depicts an example dialog interface for communication between a provider and a client;

FIGS. **17**A and **17**B depict example status displays related to a client account;

FIGS. **18**A and **18**B depict example user interfaces for establishing a dialog between a provider and a client;

FIG. **19** depicts an example user login interface;

FIGS. **20**-**22** depict various example user interfaces related to clients that have initiated a request for provider assistance;

FIGS. **23**A-**23**G and **24**-**27** depict various example user interfaces related to documenting a provider dialog with a client;

FIGS. **28**-**31** depict various example utilities user interfaces; and

FIGS. **32**A-**32**E and **33** depict various example security suite user interfaces.

DETAIL DESCRIPTION

Systems and methods are provided for managing supply, service and repair operations. For example, an individual (i.e., a client) may own a device (e.g., a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) and may seek supplies, services and/or repairs related to the device. Generally, the systems and methods of the present disclosure may enable a client to initiate an inquiry with a provider for supplies, services and/or repair of a client device; enable the client to establish an account with the provider; facilitate automatic association of a client device, or devices, with an account; facilitate automatic authentication of a client device associated with an account; facilitate provider supply, service and/or repair of the client device; facilitate documentation of activity related to an account; and/or facilitate invoicing for supplies, services and/or repairs.

As a specific example of an implementation of the systems and methods of the present disclosure, an individual (i.e., client) may own a computer that is not operating properly. The client may connect to the internet and navigate to a provider site. The client may initiate a request for assistance by simply clicking on an icon displayed within a user interface (i.e., webpage) associated with the provider site. In response to the client clicking on the icon, a provider computer may automatically establish a remote connection with the client computer. Alternatively, a provider computer may automatically generate a display on a display device of the client computer asking whether the client wishes to establish a connection with a provider computer. In any event, the provider computer may automatically generate a display of a user interface on the display device of the client computer that allows the client to establish an account (e.g., a credit card transaction) with the provider. In response to the client establishing an account, the provider computer may automatically uniquely identify the client computer and associate the unique client computer with the account. In response to uniquely identifying the client computer, the provider computer may automatically correct operation of the client computer.

Alternatively, the provider computer may automatically invoke a technician to correct operation of the client computer. The technician may either remotely correct operation of the client computer or may correct operation of the client computer at the client site.

Turning to FIG. **1**, a high-level block diagram of an example computer system **100** for managing distributed sales, service and repair operations is depicted. The computer system **100** may include a central operations center **105** and a client site **130** communicatively couple via a communications network **175**. The computer system **100** may also include a technician site **145** and a supplier site **160**. While, for convenience of illustration, only a single central operations center **105** is depicted within the computer system **100** of FIG. **1**, any number of central operations centers **105** may be included within the computer system **100**. While, for convenience of illustration, only a single customer site **130** is depicted within the computer system **100** of FIG. **1**, any number of customer sites **130** may be included may be included within the computer system **100**. Indeed, the computer system **100** may accommodate thousands of customer sites **130**. While, for convenience of illustration, only a single technician site **145** is depicted within the computer system **100** of FIG. **1**, any number of technician sites **145** may be included within the computer system **100**. Any given technician site **145** may be a mobile site. While, for convenience of illustration, only a single supplier site **160** is depicted within the computer system **100** of FIG. **1**, any number of supplier sites **160** may be included within the computer system **100**.

The communications network **175**, any one of the network adapters **111**, **118**, **125**, **137**, **152**, **167** and any one of the network connections **176**, **177**, **178**, **179** may include a hardwired section, a fiber-optic section, a coaxial section, a wireless section, any sub-combination thereof or any combination thereof, including for example a wireless LAN, MAN or WAN, WiFi, WiMax, the Internet, a Bluetooth connection, or any combination thereof. Moreover, a central operations center **105**, a client site **130**, a technician site **145** and/or a supplier site may be communicatively connected via any suitable communication system, such as via any publicly available or privately owned communication network, including those that use wireless communication structures, such as wireless communication networks, including for example, wireless LANs and WANs, satellite and cellular telephone communication systems, etc.

Any given central operations center **105** may include a mainframe, or central server, system **106**, a server terminal **112**, a desktop computer **119**, a laptop computer **126** and a telephone **127**. While the central operations center **105** of FIG. **1** is shown to include only one mainframe, or central server, system **106**, only one server terminal **112**, only one desktop computer **119**, only one laptop computer **126** and only one telephone **127**, any given central operations center **105** may include any number of mainframe, or central server, systems **106**, server terminals **112**, desktop terminals **119**, laptop computers **126** and telephones **127**. Any given telephone **127** may be, for example, a land-line connected telephone, a computer configured with voice over internet protocol (VOIP), or a mobile telephone (e.g., a smartphone). Any given server terminal **112** may include a processor **115**, a memory **116** having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations **117**, a network adapter **118** a display **113** and a keyboard **114**. Any given desktop computer **119** may include a processor **122**, a memory **123** having at least on set of computer-readable

instructions stored thereon and associated with managing distributed sales, service and repair operations **124**, a network adapter **125** a display **120** and a keyboard **121**. Any given mainframe, or central server, system **106** may include a processor **107**, a memory **1108** having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations **109**, a network adapter **111** and a customer (or client) database **110**. Any given lap top computer **126** may include a processor, a memory having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations, a network adapter, a display and a keyboard. Any given telephone **127** may include a processor, a memory having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations, a network adapter, a display and a keyboard.

Any given client site **130** may include a desktop computer **131**, a lap top computer **138**, a tablet computer **139** and a telephone **140**. While only one desktop computer **131**, only one lap top computer **138**, only one tablet computer **139** and only one telephone **140** is depicted in FIG. **1**, any number of desktop computers **131**, lap top computers **138**, tablet computers **139** and/or telephones **140** may be included at any given customer site **130**. Any given telephone **140** may be a land-line connected telephone or a mobile telephone (e.g., smartphone). Any given desktop computer **131** may include a processor **134**, a memory **135** having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations **136**, a network adapter **137** a display **132** and a keyboard **133**. Any given lap top computer **138** may include a processor, a memory having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations, a network adapter, a display and a keyboard. Any given tablet computer **139** may include a processor, a memory having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations, a network adapter, a display and a keyboard. Any given telephone **140** may include a processor, a memory having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations, a network adapter, a display and a keyboard.

Any given technician site **145** may include a desktop computer **146**, a lap top computer **153**, a tablet computer **154** and a telephone **155**. While only one desktop computer **146**, only one lap top computer **153**, only one tablet computer **154** and only one telephone **155** is depicted in FIG. **1**, any number of desktop computers **146**, lap top computers **153**, tablet computers **154** and/or telephones **155** may be included at any given technician site **145**. Any given telephone **155** may be a land-line connected telephone or a mobile telephone (e.g., smartphone). Any given desktop computer **146** may include a processor **149**, a memory **150** having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations **151**, a network adapter **152** a display **147** and a keyboard **148**. Any given lap top computer **153** may include a processor, a memory having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations, a network adapter, a display and a keyboard. Any given tablet computer **154** may include a processor, a memory having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations, a network adapter, a display and a keyboard. Any given telephone **155** may include a processor, a memory having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations, a network adapter, a display and a keyboard.

Any given supplier site **160** may include a desktop computer **161**, a lap top computer **168**, a tablet computer **169** and a telephone **170**. While only one desktop computer **161**, only one lap top computer **168**, only one tablet computer **169** and only one telephone **170** is depicted in FIG. **1**, any number of desktop computers **161**, lap top computers **168**, tablet computers **169** and/or telephones **170** may be included at any given supplier site **160**. Any given telephone **170** may be a land-line connected telephone or a mobile telephone (e.g., smartphone). Any given desktop computer **161** may include a processor **164**, a memory **165** having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations **166**, a network adapter **1167** a display **162** and a keyboard **163**. Any given lap top computer **168** may include a processor, a memory having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations, a network adapter, a display and a keyboard. Any given tablet computer **169** may include a processor, a memory having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations, a network adapter, a display and a keyboard. Any given telephone **170** may include a processor, a memory having at least on set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations, a network adapter, a display and a keyboard.

With reference to FIG. **2**, a flow diagram of an example method for remotely establishing a dialog between a provider and a client **200** is depicted. While the method **200** may be implemented, at least in part, by any one of the processors **107**, **115**, **122**, **134**, **149**, executing a respective set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations **109**, **117**, **124**, **136**, **151**, the method **200** will be described as being implemented by processors **107**, **134**, executing the respective set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations **109**, **136**. The processor **134**, executing the module **136**, may initiate contact between a customer (e.g., a client site **130**) and a service provider (e.g., a central operations center **105**, a technician site **145** and/or a supplier site **160**) in response to a client initiating contact (block **205**). Alternatively, a client may initiate contact with a technician, for example, by using telephone **140** to call either telephone **127** or **155** (block **205**). The processor **134**, executing the module **136**, may establish a connection with the processor **107**, executing the module **109** (block **210**).

The processor **107**, executing the module **109**, may determine whether the customer (or client) has an account (block **215**). If the processor **107** determines that the client has an account (block **215**), the processor **107**, further executing the module **109**, may attempt to validate the service request/customer (or client) account/customer (or client) computer in response to a technician, for example, initiating validation (block **240**).

If the processor **107** determines that the client does not have an account (block **215**), the processor **107**, further

executing the module **109**, may establish an account with a blank subscription in response to the processor **134**, executing the module **136**, sending data representative of information entered by a customer (or client) (e.g., personal information, credit card information, etc.) (block **220**). The processor **107**, further executing the module **109**, may determine whether the customer (or client) agreed to related terms (block **225**). If the processor **107** determines that the customer (or client) agreed to related terms (block **225**), the processor **107**, further executing the module **109**, may install a service module on the customer (or client) computer (block **230**). The processor **107**, further executing the module **109**, may identify the customer computer and use the identification of the customer computer to populate the blank subscription (block **235**). The processor **107** may identify the customer computer based on, for example, a customer computer (or device) mother board model number, a customer computer (or device) processor ID, a customer computer (or device) media access code (MAC) address, a customer computer (or device) hard-drive serial number, a customer computer (or device) mother-board serial number, any sub-combination thereof or a combination thereof (block **235**).

The processor **107**, further executing the module **109**, may determine whether the service request/customer (or client) account/customer (or client) computer was validated (block **245**). If the processor **107** determines that the service request/customer (or client) account/customer (or client) computer was validated (block **245**), a technician, for example, may perform service on the client computer (block **250**). If the processor **107** determines that the service request/customer (or client) account/customer (or client) computer was not validated (block **245**), the processor **107** may generate a display indicating that validation failed (block **255**).

If the processor **107** determines that the customer (or client) did not agree to the related terms (block **225**), or in any event, the processor **107**, further executing the module **109**, may generate a record of the service call and the service that was performed, if any (block **260**).

Turning to FIG. **3**, a flow diagram of an example method for remotely authenticating an identity of a client device **300** is depicted. While the method **300** may be implemented, at least in part, by any one of the processors **107**, **115**, **122**, **134**, **149**, executing a respective set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations **109**, **117**, **124**, **136**, **151**, the method **300** will be described as being implemented by processors **107**, **134**, executing the respective set of computer-readable instructions stored thereon and associated with managing distributed sales, service and repair operations **109**, **136**. The processor **107**, executing the module **109**, may generate an encrypted code based, for example, on a location (e.g., a geographic location or client location), a client account number, a service call number, a sub-combination thereof or a combination thereof (block **305**). The processor **107**, further executing the module **109**, may copy and paste the encrypted code into a data entry area in response to a technician, for example, initiating the copy/paste procedure (block **310**). Alternatively, the processor **107** may automatically copy/paste the encrypted code (block **310**). The processor **107**, further executing the module **109**, may generate a unique client computer (or device) identification based on, for example, a customer computer (or device) mother board model number, a customer computer (or device) processor ID, a customer computer (or device) media access code (MAC) address, a customer computer (or device) hard-drive serial number, a customer computer (or device) mother-board serial number, any sub-combination thereof or a combination thereof (block **315**). The processor **107**, further executing the module **109**, may compare the unique client computer (or device) identification to a client subscription (e.g., client subscription generated in block **235** of FIG. **2**) (block **320**). The processor **107**, further executing the module **109**, may determine whether the unique client computer (or device) identification matches a client subscription (block **325**). If the processor **107** determines that the unique client computer (or device) identification matches a client subscription (block **325**), a technician, for example, may perform service and/or repair on the client computer (or device) (block **330**). Alternatively, or additionally, the processor **107**, further executing the module **109**, may automatically perform service and/or repair on the client computer (or device) (block **330**). If the processor **107** determines that the unique client computer (or device) identification does not match a client subscription (block **325**), the processor **107**, further executing the module **109**, may generate a display indicating that validation failed (block **335**). In any event, the processor **107**, further executing the module **109**, may generate a record of the service call and the service and/or repair that was performed, if any (block **340**).

With reference now to FIG. **4**, an example user interface for initiating a dialog between a provider and a client **400** is depicted. The user interface **400** may, for example, be used in conjunction with block **205** of FIG. **2**. The user interface **400** may be, for example, associated with a provider website. The processor **134**, executing module **136**, may generate a display of user interface **400** on a display (e.g., display **132** of FIG. **1**) of a client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.). In any event, the user interface **400** may include an icon **405**. When a user selects the icon **405** by, for example, using a button on a mouse or touching a touch-screen display, a second user interface (e.g., user interface **600***a* of FIG. **6**A) may be displayed on the client device. Alternatively, a processor (e.g., processor **107** of FIG. **1**), executing a module (e.g., module **109** of FIG. **1**) may automatically establish a remote connection with a client device in response to a client selecting the icon **405**. The user interface **400** may also include a zip-code entry area **410** and a "click here for service" icon **415** that may allow a client to initiate service and/or repair. The processor **107** may generate another user interface (e.g., user interface **500** of FIG. **5**) in response to the client selecting the icon **415**. The client may be prompted to join a provider network (e.g., Rescuecom) **455**, enter a zip-code **420**, enter personal information **425** and select a payment method **430**. The user interface **400** may further include information access icons, such as view a brochure icon **460**, a why use provider (e.g., Rescuecom) icon **440**, a customer service icon **445**, a business IT support icon **450**, an about us icon **455**, a fast icon **470**, an anytime **475** icon, an immediate icon **480**, a protect icon **485** and/or an unlimited icon **490**. The processor **107** may generate a different user interface display on a client device display in response to a client selecting any one of the information icons **445**-**490**.

Turning to FIGS. **5**A and **5**B, example user interfaces for establishing a client account with a provider **500***a*, **500***b* are

depicted. The processor **134**, executing the module **136**, may generate a display of user interface **500***a* on a client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) display (e.g., display **132** of FIG. **1**) in response to, for example, a client selecting icon **415**. The user interface **500***a* may include an information icon **502***a* that allows a client to view details related to an unlimited computer (or device) support subscription. The user interface **500***a* may also include an instruction display area **505***a*, a client name entry field **510***a*, a client street address entry field **515***a*, a client telephone number entry field **520***a*, a client email entry field **525***a*, a marketing email selection check box **530***a*, a have a technician call me immediately check box **535***a*, a view brochure icon **540***a* and an exit icon **545***a*.

The processor **134**, further executing the module **136**, may generate a display of user interface **500***b* on a client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) display (e.g., display **132** of FIG. **1**) in response to, for example, a client entering her personal information within user interface **500***a*. The user interface **500***b* may include an information icon **502***a* that allows a client to view details related to an unlimited computer (or device) support subscription. The user interface **500***b* may also include an instruction display area **505***b*, a client name entry field **510***b*, a client street address entry field **515***b*, a client telephone number entry field **520***b*, a client email entry field **525***b*, a marketing email selection check box **530***b*, a have a technician call me immediately check box **535***b*, an exit icon **545***b*, a credit card number entry field **555***b*, a credit card security code entry field **560***b*, a credit card expiration month selection menu **565***b* and a credit card expiration year selection menu **570***b*. The user interface **500***b* may include a join now icon **575***b* that, when selected by a client, causes the processor **107**, executing the module **109**, to establish a client account (e.g., block **220** of FIG. **2**). The processor **107**, executing the module **109**, may automatically transmit any/all information, that is entered by a user, to a remote server (e.g., remote server **106** of FIG. **1**) while a user enters the information in response to the user merely entering the information within any one of the data entry fields. Alternatively, the processor **107**, executing the module **109**, may automatically transmit any/all information, that is entered by a user, to a remote server (e.g., remote server **106** of FIG. **1**) in response to the user entering the information and exits the field by, for example, clicking on a different field, hitting a tab key, hitting an enter key or touching a touch screen outside the field.

With reference to FIGS. **6**A and **6**B, an example user interface, associated with establishing a remote communication connection between a provider and a client, **600***a* is depicted along with a message banner **600***b* that indicates when a connection has been established. The processor **134**, executing the module **136**, may generate a display of user interface **600***a* on a display (e.g., display **132** of FIG. **2**) of a client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) in response to a user selecting an icon (e.g., icon **405** of FIG. **4** or icon **550** of FIG. **5**). The user interface **600***a* may include a data entry area **605***a* to facilitate client entry of a code. The code may, for example, be provided to the client by a technician. The processor **107**, executing the module **109**, may establish a remote connection between a provider device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) in response to the client entering the code in data entry area **605***a* and subsequently selecting the connect icon **610***a*. Alternatively, the processor **107**, executing the module **109**, may automatically establish a remote communication connection between a provider device (e.g., desktop computer **146** of FIG. **1**) and a client device (e.g., desktop computer **131** of FIG. **1**) in response to in response to a user selecting an icon (e.g., icon **405** of FIG. **4** or icon **550** of FIG. **5**). In any event, the processor **134**, executing the module **136**, may generate a display of banner **605***b* on the display **132**. The message banner **600***b* may further include a connection status icon **615***b* and a provider dialog icon **610***b*.

Turning to FIGS. **7-13**, various example user interfaces associated with installation of a distributed sales, service and repair management module on a client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) **700**, **800**, **900**, **1000**, **1100**, **1200**, **1300** are depicted. The processor **134**, executing module **136**, may, for example, generate a display of any one of the user interfaces **700**, **800**, **900**, **1000**, **1100**, **1200**, **1300** on a display (e.g., display **132**) of a client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) in conjunction with block **230** of FIG. **2**, for example. The user interface **700** may include an information area **705** that may indicate computer (or device) memory space requirements needed to install the module **136**. The user interface **700** may further include a back icon **710**, a next icon **715**, a cancel icon **720**, a minimize icon **730**, a full-screen icon **735** and/or an exit icon **725**. The processor **134** may perform functions that are known in the art in response to a client selecting any one of the back icon **710**, the next icon **715**, the cancel icon **720**, the minimize icon **730**, the full-screen icon **735** or the exit icon **725**.

The user interface **800** may include a notification regarding a module license agreement **805** along with terms of the licensing agreement **810**. The user interface **800** may further include a selection area indicative that a client does not accept the licensing agreement terms **810** and a selection

area indicative that the client does accept the licensing agreement terms **815** that may be used in conjunction with block **225** of FIG. **2**. The user interface **800** may further include a back icon **830**, a next icon **825**, a cancel icon **835** and an exit icon **840**. The processor **134** may perform functions that are known in the art in response to a client selecting any one of the back icon **830**, the next icon **825**, the cancel icon **835** or the exit icon **840**.

The user interface **900** may include an information area **905** related to features of the module **136**. The user interface **900** may further include a back icon **915**, a next icon **910**, a cancel icon **920** and an exit icon **925**. The processor **134** may perform functions that are known in the art in response to a client selecting any one of the back icon **915**, the next icon **910**, the cancel icon **920** or the exit icon **925**.

The user interface **1000** may include an information area **1005** related to features of the module **136**. The user interface **1000** may further include a back icon **1015**, a next icon **1010**, a cancel icon **1020** and an exit icon **1025**. The processor **134** may perform functions that are known in the art in response to a client selecting any one of the back icon **1015**, the next icon **1010**, the cancel icon **1020** or the exit icon **1025**.

The user interface **1100** may include an information area **1105** related to features of the module **136** and a status bar **1110** that may indicate an estimate of the amount of the module **136** that is currently installed on the client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.). The user interface **1100** may further include a cancel icon **1115** and an exit icon **1120**. The processor **134** may perform functions that are known in the art in response to a client selecting any one of the cancel icon **1115** or the exit icon **1120**.

The user interface **1200** may include an information area **1205** related to features of the module **136** and a status bar **1210** that may indicate an estimate of the amount of the module **136** that is currently installed on the client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.). The user interface **1200** may further include a cancel icon **1215** and an exit icon **1220**. The processor **134** may perform functions that are known in the art in response to a client selecting any one of the cancel icon **1215** or the exit icon **1220**.

The user interface **1300** may include an information area **1305** related to features of the module **136**. The user interface **1300** may further include a back icon **1315**, a finish icon **1310**, a cancel icon **1320** and an exit icon **1325**. The processor **134** may perform functions that are known in the art in response to a client selecting any one of the back icon **1315**, the finish icon **1310**, the cancel icon **1320** or the exit icon **1325**.

With reference to FIGS. **14**A and **14**B, example user interfaces associated with registering an application **1400***a*, **1415***b* are depicted. The processor **134**, executing module **136**, may, for example, generate a display of either one of the user interfaces **1400***a* **1415***b* on a display (e.g., display **132**) of a client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) in conjunction with block **230** of FIG. **2**. The user interface **1400***a* may include an information banner **1405***a*, that may include information related to registering the module **136**, and a registration icon **1410***a*. The processor **134**, executing the module **136**, may generate a display of user interface **1415***b*, on a display (e.g., display **132**) of a client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.), in response to a client selecting the icon **1410***a*, for example. The user interface **1415***b* may further include a tech only; service key code menu item **1405***b*, a connect to level-3 tech menu item **1416***b*, a system information menu item **1417***b*, a utilities menu item **1418***b*, an exit module menu item **1419***b* and a menu icon **1410***b*.

Turning to FIGS. **15**A-**15**F, example user interfaces, associated with the remote client device identity authentication method of FIG. **3**, **1500***a*-**1500***f* are depicted. The processor **149**, executing module **151**, may, for example, generate a display of any one of the user interfaces **1500***a*-**1500***f* on a display (e.g., display **147**) of a technician device e.g., desktop computer **146**) in conjunction with the method **300** of FIG. **3**. The user interface **1500***a* may include an information area **1505***a*, a customer account identification **1535***a*, a service call number **1540***a*, a location (e.g., geographic location) **1545***a*, a reschedule icon **1550***a*, an I have failed icon **1551***a*, a sell subscription icon **1555***a*, a return to open service calls icon **1560***a*, a need help icon **1565***a*, a log out icon **1570***a*, a click "Copy Key" and Paste it to the customer's computer display **1525***a*, a did you reach the customer on the phone question selection menu **1530***a*, validation indication **1520***a*, a return to open service calls icon **1580***a* and an all fields are not complete icon **1575***a*. The processor **149** may, for example, copy an encrypted key (e.g., encrypted code as generated in block **305** of the method of FIG. **3**) in conjunction with block **310** of the method **300** in response to a technician selecting a copy key icon **1510***a* of the user interface **1500***a*. The processor **149** may generate a display of the user interface **1500***b* in response to the technician selecting the copy key icon **1510***a*. The user interface **1500***b* may include an information area **1505***b*, an allow access icon **1510***b*, a don't allow access icon **1515***b* and an exit icon **1520***b*. The processor **149** may copy the encrypted key and generate a display of the user interface **1500***c* in response to the technician selecting the allow access icon **1510***b*. The processor **149** may paste the encrypted key into the data entry area **1510***c* in response to the technician selecting the paste code icon **1520***c*. The user interface **1500***c* may also include an information area **1505***c*, a screen connect icon **1515***c*, an exit icon **1525***c* and a cancel icon **1530***c*.

The processor **149** may generate a display of the user interface **1500***d*, with a "masked" version of the encrypted code depicted within the data entry area **1510***d*, in response to the technician selecting the paste code icon **1520***c*. The user interface **1500***d* may include an information area **1530***d*, a screen connect icon **1515***d*, a paste code icon

1520*d*, an exit icon **1525***d* and a cancel icon **1530***d*. Subsequent to copying/pasting the encrypted code into the data entry area **1510***d*, the processor **149** may generate a display of the user interface **1500***e* in response to the technician selecting the validate icon **1515***a* and the service call is validated via, for example, the method **300** of FIG. **3**. As can be seen by comparing the user interface **1500***a* with the user interface **1500***e*, the validation indication **1520***a* (e.g., an "X") changes to validation indication **1520***e* (e.g., a "√") once the service call is validated per, for example, the method **300** of FIG. **3**.

The user interface **1500***e* may include an information area **1505***e*, a did you reach the customer by phone selection menu **1506***e*, an are you and the customer ready to begin working together selection menu **1507***e*, an are you now connected to the customer computer (or device) selection menu **1508***e*, a return to open service calls icon **1580***e*, a reschedule icon **1550***e*, an I have failed icon **1551***e* and a copy key icon **1510***e*. The processor **149** may generate a display of the user interface **1500***f* in response to the technician selecting the start call icon **1576***e*. The user interface **1500***f* may include an information area **1505***f*, did you reach the customer by phone selection menu **1520***f*, a customer account identification **1535***f*, a service call number **1540***f*, a location (e.g., geographic location) **1545***f*, a reschedule icon **1550***f*, an I have failed icon **1551***f*, a return to open service calls icon **1560***f*, a need help icon **1565***f*, a logout icon **1570***f*, a return to open service calls icon **1580***f* and a send call icon **1575***f*.

With reference to FIG. **16**, an example dialog user interface for communication between a provider and a client **1600** is depicted. Any one of the processors **107**, **115**, **122**, **134**, **149**, **164** may generate a display of the user interface **1600** on a corresponding display. The user interface **1600** may include a message entry area **1605**, a message display area **1610**, a message send icon **1615**, a connection status area **1620** and an exit icon **1625**.

Turning to FIGS. **17**A and **17**B, example status displays related to a client account **1700***a*, **1700***b* are depicted. Any one of the processors **107**, **115**, **122**, **134**, **149**, **164** may generate a display of either, or both, of the status displays **1700***a*, **1700***b* on a corresponding display device per, for example, block **255** of the method **200** of FIG. **2** or block **335** of the method **300** of FIG. **3**. The status display **1700***a* may include an information area **1705***a*, a repair icon **1710***a*, a status icon **1715***a*, an information icon **1720***a* and an exit icon **1725***a*. The status display **1700***b* may include an information area **1705***b*, a repair icon **1710***b*, a status icon **1715***b* and an exit icon **1725***b*.

With reference to FIGS. **18**A and **18**B, example user interfaces for establishing a dialog between a provider and a client **1800***a*, **1800***b*. Processor **107** may generate a display of the user interface **1805***a* in response to, for example, a user (e.g., a client) selecting the initiation icon **1810***a*. Processor **107** may generate a display of the user interface **1800***b* in response to, for example, a user (e.g., client) selecting the open service call icon **1815***a*. The user interface **1805***a* may further include a connect to level-3 technician icon **1816***a*, a system information icon **1817***a* a utilities icon **1818***a* and an exit icon **1819***a*. The user interface **1800***b* may include an information banner **1805***b*, a what problem would you like this service call to resolve display **1810***b*, a service desired entry area **1815***b*, a click button for service display **1825***b*, a place service call icon **1820***b*, an exit icon **1830***b* and a cancel icon **1835***b*.

Turning to FIG. **19**, an example user (e.g., technician) login interface **1900** is depicted. Processor **149**, executing the module **151**, may generate a display of the user interface **1900** on, for example, a display **147**. The user interface **1900** may include an information area **1905**, a user name entry area **1910**, a password entry area **1920** and a logon icon **1925**.

With reference to FIGS. **20-22**, various example user interfaces related to clients that have initiated a request for provider assistance **2000**, **2100***a*, **2100***b*, **2200** are depicted. The processor **149**, executing the module **151**, may generate a display of the user interface **2000** in response to a user (e.g., technician) selecting, for example, the logon icon **1925** of the user interface **1900**. Subsequent to generating the display of the user interface **2000**, the processor **149**, further executing the module **151**, may automatically generate a display of the user interface **2100***a* in response to the processor **149** retrieving customer data from, for example, the customer database **110** of FIG. **1**. The user interface **2000** may include a general information area **2005**, a customer information area **2005**, a refresh icon **2010**, a select customer icon **2015**, a need help icon **2020** and a logout icon **2025**. The user interface **2100***a* may include a plurality of customer selection boxes **2110***a* associated with clients that have initiated a desire to obtain service, a service call scheduled header **2115***a*, a customer header **2120***a*, a geographic location (or franchise) header **2125***a*, a service call number header **2130***a*, a status header **2135***a*, a client accept icon **2137***a*, a refresh icon **2140***a*, a select customer icon **2145***a*, a need help icon **2150***a* and a logout icon **2155***a*.

Processor **149**, further executing the module **151**, may generate a display of the user interface **2100***b* in response to, for example, a user (e.g., technician) selecting one of the customer selection boxes **2110***a* and subsequently selecting the select customer icon **2145***a*. The user interface **2100***b* may include a general client information display area **2105***b*, a client notes icon **2115***b*, a detail client information icon **2125***b*, a return to open service calls icon **2110***b*, a need help icon **2130***b*, a log out icon **2135** and an accept service call icon **2120***b*.

Processor **149**, yet further executing the module **151**, may generate a display of the user interface **2200** in response to, for example, a user (e.g., technician) selecting the accept service call icon **2120***b*. The user interface **2200** may include a selected customer information display area **2205**, a description of services performed entry area **2210**, a warranty no charge selection menu **2215**, a number of hours selection menu **2220** and a number of minutes selection menu **2225**.

With reference to FIGS. **23**A-**23**H and **24-27**, various example user interfaces related to documenting a provider (e.g., technician) dialog with a client **2300***a*-**2300***h*, **2400**, **2500**, **2600**, **2700** are depicted. Processor **149**, executing the module **151**, may generate a display of user interface **2300***a* in response to, for example, a user (e.g., technician) selecting one of the customer selection boxes **2110** and subsequently selecting the select customer icon **2145**. The user interface **2300***a* may include a selected customer information display area **2305***a*, a description of services performed entry area **2310***a*, a customer has system disks selection menu **2315***a*, a customer has OS license selection menu **2316***a*, a customer has program license selection menu **2317***a*, a customers say that they have current backup selection menu **2318***a*, a check if backup is good selection menu icon **2319***a*, an offer to make backup selection menu **2320***a*, a backup customer's data selection menu **2321***a*, a warranty no charge selection menu **2322***a*, an hour selection menu **2323***a*, a minute selection menu **2324***a*, an estimated service to bill including tax display **2325***a*, a go to last page

icon **2330***a*, an all fields are not complete icon **2335***a*, a need help icon **2340***a*, a logout icon **2345***a*, a send service call to customer service icon **2350***a*, an order/view parts icon **2355***a*, a go back to customers list icon **2360***a*, a reschedule client service call icon **2365***a* and an I have failed to correct client device problem icon **2370***a*.

Processor **149** may generate a display of the user interface **2300***b* in response to, for example, a user (e.g., a technician) selecting the I have failed icon **2370***a*. The user interface **2300***b* may include an I have failed display **2350***b*, a cannot diagnose problem icon **2351***b*, a customer does not want to continue icon **2352***b*, a customer needs follow up from different technician icon **2553***b* and an exit icon **2355***b*.

Processor **149** may generate a display of the user interface **2300***c* in response to, for example, a user (e.g., a technician) selecting the order/view parts icon **2355***a*. The user interface **2300***c* may include an order/view parts display **2355***c*, a view sold parts icon **2356***c*, a sell UCSS icon **2357***c* and a go back to customers list icon **2360***c*.

Processor **149** may generate a display of the user interface **2300***d* in response to, for example, a user (e.g., technician) selecting the select type of customer selection menu **2365***d*, **2550**. The select type of customer selection menu **2365***d* may include a customer item **2366***d*, a small/mid business item **2367***d*, a corporation item **2368***d*, a nonprofit/Gov't/Ed item **2369***d*. The user interface **2300***d* may further include an all fields not complete icon **2335***d*.

Processor **149** may generate a display of the user interface **2300***e* in response to, for example, a user (e.g., a technician) selecting a warranty no charge selection menu **2322***a*, **2322***e*. The warranty no charge selection menu **2322***a*, **2322***e* may include a warranty no charge item **2326***e* and a warranty with charge billable item **2327***e*.

Processor **149** may generate a display of the user interface **2300***f* in response to, for example, a technician selecting a reschedule client service call icon **2365**. The user interface **2300***f* may include an information display area **2305***f*, a customer information display area **2310***f*, a call reschedule information display area **2315***f*, a reason for reschedule information entry area **2320***f*, a reschedule data entry area **2325***f*, reschedule time selection menus **2330***f*, **2335***f*, **2340***f*, a go back to service call icon **2350***f*, an all fields not completed icon **2355***f*, a need help icon **2360***f* and a log out icon **2365***f*.

Processor **149** may generate a display of the user interface **2300***g* in response to, for example, a technician entering all necessary information within user interface **2300***f*. The user interface **2300***g* may include an information display area **2305***g*, a client information display area **2310***g*, a you are about to reschedule the following call information display area **2315***g*, a reason for rescheduling the call information entry area **2320***g*, a choose different date/time icon **2350***g*, a confirm reschedule of service call icon **2355***g*, a need help icon **2360***g* and a log out icon **2365***g*.

Processor **149** may generate a display of the user interface **2400** in response to, for example, a user (e.g., a technician) selecting an all fields are not complete icon **2325***a*. The user interface **2400** may include a selected customer information area **2405**, a send call to customer service icon **2410**, a go back to customers list icon **2415**, a service call detail information area **2420** and a go back to call icon **2425**.

Processor **149** may generate a display of user interface **2500** in response to, for example, a user (e.g., technician) selecting one of the customer selection boxes **2110** and subsequently selecting the select customer icon **2145**. The user interface **2500** may include an information area **2505**, a description of services performed entry area **2510**, a confirm problem resolved entry area **2515**, an hours selection menu **2520**, a minutes selection menu **2525**, a did you sell any parts selection menu **2530**, a service total including tax display **2535**, a total due including tax **2540**, a check if problem not resolved box **2545**, a select type of customer selection menu **2550**, a customer wants a free newsletter selection menu **2555**, a return to open service calls icon **2565** and an all fields are not complete icon **2560**.

Processor **149** may generate a display of user interface **2600** in response to, for example, a user (e.g., technician) selecting an all fields are not complete icon **2560**. The user interface **2600** may include a selected customer information area **2605**, an additional notes entry area **2610**, a service dollar amount entry area **2615**, an estimation of parts dollar amount entry area **2620**, a check here if you did not actual fix every problem the customer stated 100% box **2625**, a save and invoice call, a send to customer service icon **2630**, a view parts icon **2635**, a don't save icon **2640** and a save and invoice call icon **2645**.

Processor **149** may generate a display of user interface **2700** in response to, for example, a user (e.g., a technician) selecting a save and invoice call icon **2645**. The user interface **2700** may include an invoice detail information area **2705**, a go back to service call icon **2715** and a submit invoice icon **2710**. Processor **107** may store a record on the service call within, for example, customer database **110** in response to a user (e.g., a technician) selecting a submit invoice icon **2710**. Processor **134** may generate a display of invoice detail information area **2705** on a display **132** in response to, for example, a user (e.g., a technician) selecting a submit invoice icon **2710**.

Turning to FIGS. **28-31**, various example utilities user interfaces **2800**, **2900**, **3000**, **3100** are depicted. Any one of processors **107**, **115**, **122**, **134**, **149** may generate a display of user interface **2800** in response to, for example, a user (e.g., a client, a technician or a central operations center staff person) selecting a utilities icon **1818***a*. The user interface **2800** may include an information area **2805**, a password entry area **2810**, a connect to level-3 technician icon **2815**, an exit icon **2820** and a cancel icon **2825**.

When an associated device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) is currently operating in normal mode, any one of processors **107**, **115**, **122**, **134**, **149** may generate a display of user interface **2900** in response to, for example, a user (e.g., a client, a technician or a central operations center staff person) selecting a utilities icon **1818***a*, or in response to, for example, a user (e.g., a client, a technician or a central operations center staff person) entering a password in the password entry area **2810** and selecting enter key on a keyboard (e.g., keyboard **114**, **121**, **133**, **148**). The user interface **2900** may include an information area **2905**, a disk defrag icon **2910**, a backdoor icon **2911**, a restore icon **2912**, a client info icon **2913**, a RISS icon **2914**, a virus scan icon **2915**, a network sniffer icon **2916**, a system configuration icon **2917**, a registry icon **2918**, a services icon **2919**, a create RISS key icon **2930**, a task manager icon **2931**, an event viewer icon **2932**, a programs icon **2933**, an exit icon **2935** and a cancel icon **2940**.

When an associated device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a televi-

sion, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) is currently operating in safe mode, any one of processors **107**, **115**, **122**, **134**, **149** may generate a display of user interface **3100** in response to, for example, a user (e.g., a client, a technician or a central operations center staff person) selecting a utilities icon **1818***a*, or in response to, for example, a user (e.g., a client, a technician or a central operations center staff person) entering a password in the password entry area **2810** and selecting enter key on a keyboard (e.g., keyboard **114**, **121**, **133**, **148**). The user interface **3100** may include an information area **2905**, a disk defrag icon **3110**, an exit backdoor icon **3111**, a restore icon **3112**, a client info icon **3113**, a RISS icon **3114**, a virus scan icon **3115**, a network sniffer icon **3116**, a system configuration icon **3117**, a registry icon **3118**, a services icon **3119**, a create RISS key icon **3130**, a task manager icon **3131**, an event viewer icon **3132**, a programs icon **3133**, an exit icon **3135** and a cancel icon **3140**.

Processor **107**, executing module **109**, may implement method **3000** of FIG. **30** in response to a user (e.g., a client, a technician or a central operations center staff person) selecting a backdoor icon **2911**, or an exit backdoor icon **3111**, depending in which state (e.g., normal mode or safe mode, respectively) the associated device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) is currently operating. Generally, the processor **107** may switch the associated device from normal mode to safe mode and back to normal mode by selecting a single icon **2911**, **3111**. As can be seen by viewing FIGS. **29** and **31**, processor **107** may change an identification of the icon **2911** from "backdoor" to icon **3111** "exit backdoor" and back to icon **2911** "backdoor," respectively, when the processor **107** implements the method **3000**. Processor **107** may read an indication of a current operating mode of a device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.), for example, from a device boot.ini file (block **3005**). Optionally, the processor **107** may prompt a user (e.g., a client or technician) to enter a password (block **3010**). The processor **107** may determine in which mode (e.g., normal mode or safe mode) of operation the device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) is currently operating (block **3015**). Alternatively, processor **107**, implementing a portion of the method **3000**, may reboot the device into the mode (e.g., safe mode or normal mode) opposite the current operating mode (e.g., normal mode or safe mode) (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) in response to a user entering a password (e.g., reboot911) in lieu of requiring a user to select either the backdoor icon or the exit backdoor icon. For example, in circumstances where a client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) cannot be connected to a remote server (e.g., remote server **116**) (i.e., the client device is in "airplane mode"), the processor **107** may reboot the client device into the mode (e.g., safe mode or normal mode) opposite the current operating mode (e.g., normal mode or safe mode) (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) in response to a user entering a password (e.g., reboot911). The client device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) may not connect to the remote server (e.g., remote server **116**) because, for example, the client device is not connected to the internet, a client device network card is faulty, a communication error exists between the client device and the remote server, etc.

Processor **107** may execute a disk defrag application in response to, for example, a user (e.g., a client or a technician) selecting the disk defrag icon **2910**, **3110**. Processor **107** may implement the method **3000** in response to, for example, a user (e.g., a client or a technician) selecting the backdoor icon **2911** or the exit backdoor icon **3111**. Processor **107** may execute a data restoration application in response to, for example, a user (e.g., a client or a technician) selecting the restore icon **2912**, **3112**. Processor **107** may execute a security application in response to, for example, a user (e.g., a client or a technician) selecting the RISS icon **2914**, **3114**. Processor **107** may execute a virus scan application in response to, for example, a user (e.g., a client or a technician) selecting the virus scan icon **2915**, **3115**. Processor **107** may execute a network sniffer application in response to, for example, a user (e.g., a client or a technician) selecting the network sniffer icon **2916**, **3116**. Processor **107** may execute a system configuration application in response to, for example, a user (e.g., a client or a technician) selecting the system configuration icon **2917**, **3117**. Processor **107** may execute a registry application in response to, for example, a user (e.g., a client or a technician) selecting the registry icon **2918**, **3118**. Processor **107** may execute a services application in response to, for example, a user (e.g., a client or a technician) selecting the services icon **2919**, **3119**. Processor **107** may execute a task manager application in response to, for example, a user (e.g., a client or a technician) selecting the task manager icon **2931**, **3131**. Processor **107** may execute an event viewer

application in response to, for example, a user (e.g., a client or a technician) selecting the event viewer icon **2932**, **3132**. Processor **107** may execute a programs application in response to, for example, a user (e.g., a client or a technician) selecting the programs icon **2933**, **3133**. Processor **107** may exit the utilities user interface **2900**, **3100** in response to, for example, a user (e.g., a client or a technician) selecting the exit icon **2935**, **3135**.

If the processor **107** determines that the device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) is currently operating in safe mode (block **3015**), the processor **107** may set the normal mode icon **3111** to, for example, "exit backdoor" (block **3020**). The processor **107** may activate the normal mode icon **3111** and may edit a boot record of the device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) to reboot the device in normal mode when a user (e.g., client or technician) selects the normal mode icon **3111** (block **3025**). A user (e.g., a client or technician) may select the normal mode icon **3111** (block **3030**). The processor **107** may reboot the device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139** or telephone **140**) to normal mode in response to the user selecting the normal mode icon **3111** (block **3035**).

If the processor **107** determines that the device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) is currently operating in normal mode (block **3015**), the processor **107** may set the safe mode icon **2911** to, for example, "backdoor" (block **3040**). The processor **107** may activate the safe mode icon **2911** and may edit a boot record of the device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) to reboot the device in safe mode when a user (e.g., client or technician) selects the safe mode icon **2911** (block **3025**). A user (e.g., a client or technician) may select the safe mode icon **2911** (block **3030**). The processor **107** may reboot the device (e.g., desktop computer **131**, laptop computer **138**, tablet computer **139**, telephone **140** of FIG. **1**, a computer, a printer, a mobile telephone, a television, a computer gaming device, a DVD player, a cable television device, a computer router, a computer network, a home security system, a data storage device, a stereo system, a theater system, an appliance, a piece of equipment, etc.) to safe mode in response to the user selecting the safe mode icon **2911** (block **3035**).

With reference to FIGS. **32**A-**32**E and **33**, various example security suite user interfaces **3200***a*-**2300***e* and **3300** are depicted. Processor **134** may generate a display of user interface **3200***a* in response to, for example, a user (e.g., a technician) selecting a create RISS key icon **2930**, **3130**. The user interface **3200***a* may include an information area **3205***a* having, for example, an instructional information display **3206***a*, a create RISS key icon **3210***a*, an exit icon **3215***a* and a cancel icon **3220***a*.

Processor **134** may generate a display of user interface **3200***b* in response to, for example, a user (e.g., a technician) selecting a create RISS key icon **3210***a*. The user interface **3200***b* may include an instructional information display **3206***b*, a create RISS key icon **3210***b*, an exit icon **3215***b*, a cancel icon **3220***b* and an information area **3205***b* having, for example, an information display **3207***b*. Subsequent to the processor **134** generating the display of the user interface **3200***b*, the processor **134** may automatically retrieve RISS data. The processor **134** may automatically generate a display of the user interface **3200***c* based on the retrieved RISS data. The user interface **3200***c* may include an instructional information display **3206***c*, a create RISS key icon **3210***c*, an exit icon **3215***c*, a cancel icon **3220***c* and an information area **3205***b* having, for example, a RISS key data **3208***b* display. Subsequent to the processor **134** generating the display of the user interface **3200***c*, the processor **134** may automatically generate a display of the user interface **3200***d*. The processor **134** may automatically populate the license key entry area **3225***d* with the RISS key data **3208***b*. The user interface **3200***d* may further include an OK icon **3230***d* and a cancel icon **3235***d*.

Processor **134** may generate a display of the user interface **3200***e* in response to, for example, a user (e.g., a technician) selecting the OK icon **3230***d*. The user interface **3200***e* may include a license key display area **3225***e*, a licensing key data **3208***e* display, an apply icon **3240***e*, an OK icon **3245***e*, a cancel icon **3250***e*, a trial icon **3250***e* and a buy now icon **3260***e*.

Processor **134** may generate a display of the user interface **3300** on a display (e.g., display **147**) in response to, for example, a user (i.e., a technician) selecting an apply icon **3240***e* and/or an OK icon **3245***e*. Alternatively, processor **107** may generate a display of the user interface **3300** on a display (e.g., display **132**) in response to, for example, a user (i.e., a client) selecting a buy now icon **3260***e*. In any event, the user interface **3300** may include an information area **3305**, a file anti-virus icon **3310**, a mail anti-virus icon **3315**, an anti-spam icon **3320**, a web protection icon **3325**, a firewall icon **3330**, an endpoint security icon **3335**, a privacy control icon **3340**, a cloud protection icon **3345**, a help icon **3350**, a minimize icon **3355** and an exit icon **3360**. Processor **107** may execute a file anti-virus application in response to, for example, a user (e.g., a client or a technician) selecting the file anti-virus icon **3310**. Processor **107** may execute a mail anti-virus application in response to, for example, a user (e.g., a client or a technician) selecting the mail anti-virus icon **3315**. Processor **107** may execute an anti-spam application in response to, for example, a user (e.g., a client or a technician) selecting the anti-spam icon **3320**. Processor **107** may execute a web protection application in response to, for example, a user (e.g., a client or a technician) selecting the web protection icon **3325**. Processor **107** may execute a firewall application in response to, for example, a user (e.g., a client or a technician) selecting the firewall icon **3330**. Processor **107** may execute an endpoint security application in response to, for example, a user (e.g., a client or a technician) selecting the endpoint security icon **3335**. Processor **107** may execute a privacy control application in response to, for example, a user (e.g., a client or a

technician) selecting the privacy control icon **3340**. Processor **107** may execute a cloud protection application in response to, for example, a user (e.g., a client or a technician) selecting the cloud protection icon **3345**. Processor **107** may execute a help application in response to, for example, a user (e.g., a client or a technician) selecting the help icon **3350**. Processor **107** may minimize the display of the user interface **3300** in response to, for example, a user (e.g., a client or a technician) selecting the minimize icon **3355**. Processor **107** may delete the display of the user interface **3300** in response to, for example, a user (e.g., a client or a technician) selecting the exit icon **3360**.

This detailed description is to be construed as exemplary only and does not describe every possible embodiment, as describing every possible embodiment would be impractical, if not impossible. One could implement numerous alternate embodiments, using either current technology or technology developed after the filing date of this application.

What is claimed is:

1. A computer implement method to reboot a client device in a normal operating mode when the client device is currently operating in a safe operating mode and to reboot the client device to a safe operating mode when the client device is currently operating in a normal operating mode, the method comprising:

receiving, at a processor of a provider computer located remote from the client device, client device operating mode data, wherein the client device operating mode data is indicative of a current operating mode of the client device;

determining, using the processor, whether the client device is currently operating in a safe operating mode or a normal operating mode based on the client device operating mode data;

receiving, at the processor, password data, wherein the password data is representative of user information indicative of whether the user is authorized to reboot the client device in the normal operating mode when the client device is currently operating in the safe operating mode or to reboot the client device to the safe operating mode when the client device is currently operating in the normal operating mode; and

causing, using the processor, the client device to reboot to safe mode when the client device is determined to be currently operating in normal operating mode or causing the client device to reboot to normal operating mode when the client device is determined to be currently operating in safe operating mode in response to receiving the password data.

2. The method of claim **1**, wherein a password is entered by a user via a user interface device.

3. The method of claim **2**, wherein the user interface device is connected to a computing device that is remote from the client device.

4. The method of claim **3**, further comprising:

transmitting, using the processor, the password data, from the computing device that is remote from the client device, to the client device; and

causing, using a processor of the client device, the client device to reboot to safe mode when the client device is determined to be currently operating in normal operating mode or causing the client device to reboot to normal operating mode when the client device is determined to be currently operating in safe operating mode in response to receiving the password data.

5. The method of claim **1**, wherein the client device operating mode data is based on a boot.ini file or an EG boot.ini file stored on a memory of the client device.

6. The method of claim **1**, wherein at least a portion of the password data is representative of: alphabetical letter, at least one number or at least one ASCI character.

7. A computer system to reboot a client device in a normal operating mode when the client device is currently operating in a safe operating mode and to reboot the client device in a safe operating mode when the client device is currently operating in a normal operating mode, the computer system comprising:

at least one processor and at least one memory of a provider computer located remote from the client device;

a client device operating mode determination module, stored on the at least one memory, that, when executed by the at least one processor, causes the at least one processor to determine, based on client device operating mode data, whether the client computer is currently operating in a safe operating mode or a normal operating mode;

a password data receiving module, stored on the at least one memory, that, when executed by the at least one processor, causes the at least one processor to receive password data, wherein the password data is representative of user information indicative of whether the user is authorized to reboot the client device in the normal operating mode when the client device is currently operating in the safe operating mode or to reboot the client device to the safe operating mode when the client device is currently operating in the normal operating mode; and

a mode reboot module, stored on the at least one memory, that, when executed by the at least one processor, causes the at least one processor to reboot the client device to safe mode when the client device is determined to be currently operating in normal operating mode or causes the processor to reboot the client device to normal operating mode when the client device is determined to be currently operating in safe operating mode in response to receiving the password data.

8. The computer system of claim **7**, wherein a password is entered by a user via a user interface device.

9. The computer system of claim **8**, wherein the user interface device is connected to the client device.

10. The computer system of claim **7**, wherein determining whether the client computer is currently operating in safe mode or normal mode is performed by a processor of the client device executing a mode determination module stored on a memory of the client device.

11. The computer system of claim **7**, further comprising:

a mode data transmission module, stored on the at least one memory, that, when executed by the at least one processor, causes the at least one processor to transmit client device mode operating data from the client device to a computing device that is located remote from the client device; and

wherein determining whether the client computer is currently operating in safe mode or normal mode is performed by a processor of the computing device that is located remote from the client device executing a mode determination module stored on a memory of the computing device that is located remote from the client device.

12. The computer system of claim 11, further comprising:

a mode display module, stored on the at least one memory, that, when executed by the at least one processor, causes the at least one processor to display, on a display device of the computing device that is located remote from the client device, an indication whether the client device is currently operating in the safe operating mode or the normal operating mode.

13. The computer system of claim 7, wherein the client device is communicatively coupled to a remote computer via a communication network that includes an internet segment and at least a portion of at least one of the client device operating mode determination module, the password data receiving module or the mode reboot module is executed by a processor of the remote computer.

14. A non-transitory computer-readable medium having instructions stored thereon that, when executed by a processor of a provider computer located remote from a client device, cause the processor to reboot the client device to a normal operating mode from a safe operating mode and to reboot the client device to a safe operating mode from a normal operating mode, the non-transitory computer-readable medium comprising:

a client device operating mode determination module that, when executed by the processor, causes the processor to determine, based on client device operating mode data, whether the client computer is currently operating in a safe operating mode or a normal operating mode;

a password data receiving module that, when executed by the processor, causes the processor to receive password data, wherein the password data is representative of user information indicative of whether the user is authorized to reboot the client device in the normal operating mode when the client device is currently operating in the safe operating mode or to reboot the client device to the safe operating mode when the client device is currently operating in the normal operating mode; and

a mode reboot module that, when executed by the processor, causes the processor to reboot the client device to safe mode when the client device is determined to be currently operating in normal operating mode or causes the processor to reboot the client device to normal operating mode when the client device is determined to be currently operating in safe operating mode in response to receiving the password data.

15. The non-transitory computer-readable medium of claim 14, wherein the client device is communicatively coupled to a remote computer via a communication network that includes an internet segment and at least a portion of at least one of the client device operating mode determination module, the password data receiving module or the mode reboot module is executed by a processor of the remote computer.

16. The non-transitory computer-readable medium of claim 15, wherein a password is entered by a user via a user interface device connected to the remote computer.

17. The non-transitory computer-readable medium of claim 14, wherein determining whether the client device is currently operating in the safe operation mode or the normal operating mode is performed by a processor of the client device executing the client device operating mode determination module.

18. The non-transitory computer-readable medium of claim 14, further comprising:

a mode display module that, when executed by the processor, causes the processor to display, on a display device of the computing device that is located remote from the client device, an indication whether the client device is currently operating in the safe operating mode or the normal operating mode.

19. The non-transitory computer-readable medium of claim 18, further comprising:

a mode data transmission module that, when executed by the processor, causes the processor to transmit client device mode operating data from the client device to a computing device that is located remote from the client device; and

wherein determining whether the client computer is currently operating in safe mode or normal mode is performed by a processor of the computing device that is located remote from the client device executing a mode determination module stored on a memory of the computing device that is located remote from the client device.

20. The non-transitory computer-readable medium of claim 14, wherein a password is entered by a user via a user interface device connected to the client device.

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